



# MARKET COMMENTARY

**proceedings of the  
canadian agricultural  
outlook conference  
december/82**



**Agriculture  
Canada**

**PROCEEDINGS OF THE  
CANADIAN AGRICULTURAL  
OUTLOOK CONFERENCE**

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**Agriculture  
Canada**

Hon. Eugene Whelan, Minister of Agriculture  
J.P. Connell, Deputy Minister



## **Foreword**

This publication presents the proceedings of the Canadian Annual Agricultural Outlook Conference, which took place in Ottawa on Monday 6 and Tuesday 7 December, 1982. It contains addresses given at the plenary sessions of the Conference and presentations made during the concurrent sessions. Appreciation is extended to all those who assisted in the preparation of these papers.

The Commodity papers presented at the Conference, namely, the papers on Grains and Oilseeds, Animal and Animal products, Milk and Dairy products and Horticulture and Special Crops are available in the December 1982 edition of Market Commentary. A special December 1982 issue of Market Commentary (Market Commentary: Farm Inputs and Finance) contains papers on the outlook for farm inputs.

*J. Petit*

Commodity Markets Analysis Division



## Contents

|                                                                        |                         |
|------------------------------------------------------------------------|-------------------------|
| Conference program                                                     | 5                       |
| Opening address                                                        | Hon. Eugene Whelan 11   |
| Agriculture marketing in perspective                                   | J.P. Connell 14         |
| Market development: catalyst for growth                                | Y. Jacques 15           |
| Canada's international marketing opportunities in the agri-food sector | C.T. Charland 17        |
| Canada's domestic market opportunities                                 | Gerard Virthe 22        |
| The Canadian economy in 1983                                           | Peter Gusen 28          |
| The world agricultural outlook for 1983                                | Patrick M. O'Brien 32   |
| Agricultural markets: a short-term overview                            | Brian Paddock 40        |
| Mid-term outlook for Canadian agriculture                              | H. Bruce Huff 43        |
| Farm income outlook                                                    | Ernie Boyko 48          |
| Farm outlook implications                                              | Dr. Brian Perkins 51    |
| Food prices                                                            | Brian Davey 54          |
| International meat trade: trade barriers and trade rules               | M.N. Gifford 58         |
| Outlook for wheat                                                      | Peter Fawcett 61        |
| Coarse grains market outlook                                           | A. Daoust 65            |
| Oilseed outlook                                                        | Hans Duncker 68         |
| 1983 acreage forecast                                                  | Dr. John Groenewegen 71 |
| An overview of world and Canadian grain trade trends                   | S. Weedle 73            |
| Trade prospects for centrally planned economies                        | Georgina Vitonova 77    |
| Long-term trade prospects outside centrally planned countries          | Brian T. Oleson 82      |
| Reply to dairy outlook                                                 | Raymond Cloutier 90     |
| The economies of milk production                                       | W.H. Sherwood 95        |
| General commodity overview                                             | Nelson Longmuir 99      |
| Farm income situation (1982) and outlook (1983): provincial detail     | G. Andrusiak 101        |
| Farm equipment industry outlook                                        | R.J. Peterson 122       |
| Mid-term outlook — Eastern Canada                                      | Keith Russell 126       |
| Medium-term outlook — Quebec and Ontario                               | H. Garth Coffin 129     |
| The medium-term outlook — Western Canada                               | Travis W. Manning 136   |
| Closing address                                                        | Hon. Eugene Whelan 139  |



# **CANADIAN AGRICULTURAL OUTLOOK CONFERENCE**

## **DECEMBER 6-7, 1982**

### **CONFERENCE CENTRE, OTTAWA**

## **AGENDA**

### **Monday, December 6, 1982**

08:15      **Registration**  
Conference Chairman: J.P. Connell  
Deputy Minister  
Agriculture Canada  
Conference Theme: Market development  
for Canadian agriculture

### **Plenary Session I**

Session Chairman: J.P. Connell  
Deputy Minister  
Agriculture Canada

08:50      **Opening Address**  
Honourable Eugene F. Whelan  
Minister of Agriculture  
Agriculture Canada

09:15      **Presentation**  
W.J. Heeney, for his contribution to the Canadian  
frozen food industry

09:30      **Agriculture Marketing in Perspective**  
J.P. Connell  
Deputy Minister  
Agriculture Canada

09:35      **Market Development Catalyst for Growth**  
Y. Jacques  
Assistant Deputy Minister  
Marketing & Economics Branch  
Agriculture Canada

09:50      **Marketing Advances in Canada: The Pace Setters**  
Slide presentation by Agriculture Canada

10:00      **Break**

10:30      **Canada's International Marketing Opportunities in the  
Agri-Food Sector**  
C.T. Charland  
Assistant Deputy Minister  
Trade Development, External Affairs

11:00      **Canada's Domestic Market Opportunities**  
G. Virthe  
President, COGEM  
Montreal, Québec

- 11:30           **Market Development Forum — Question Period**  
 All Agriculture Canada  
 Assistant Deputy Ministers, C.T. Charland, G. Virthe
- 12:15           Lunch

## **Plenary Session II**

Session Chairman: G.I. Trant  
 Senior Assistant Deputy Minister  
 Agriculture Canada

- 13:45           **The Canadian Economy in 1983**  
 P. Grusen  
 Director, Provincial Analysis Group  
 Conference Board of Canada, Ottawa
- 14:05           Questions
- 14:15           **The World Agricultural Outlook for 1983**  
 P.M. O'Brien  
 Assistant Director, International Economics Division  
 USDA, Washington, D.C.
- 14:35           Questions
- 14:45           **The Canadian Agricultural Outlook for 1983 and the Next Five Years**  
 D. Hedley  
 Agriculture Canada  
 B. Huff  
 Agriculture Canada
- 15:15           Break
- 15:45           **Farm Income Outlook**  
 E. Boyko  
 Statistics Canada  
 B. Perkins  
 Agriculture Canada
- 16:05           **Outlook for Food Prices**  
 B. Davey  
 Agriculture Canada
- 16:25           Questions
- 16:45           Adjournment
- 18:00-20:00   Foreign agricultural attachés reception

## **Tuesday, December 7, 1982**

- 08:30 - 12:00   **Concurrent Sessions**
- 08:30 - 12:00   Livestock and poultry — Main Hall
- 08:30 - 09:00   Feed grains summary for livestock and poultry session
- 09:00 - 12:00   Livestock and poultry session
- 09:00 - 12:00   Grains and oilseeds — Sussex Room (106)
- 09:00 - 12:00   Dairy — Colonel By Room (412)
- 08:30 - 12:00   Horticulture and special crops — Rideau Room (508)
- 08:30 - 12:00   Farm costs and income — Centennial Room (517)

(1) *Livestock and Poultry*

Chairman: Mr. S.B. Williams  
Agricultural Consultant

- 08:30 **Feed Grains Summary**  
J. Gellner  
Agriculture Canada
- 09:00 **Livestock and Meat Outlook**  
A.M. Boswell  
Agriculture Canada
- 09:25 **Poultry Outlook**  
P.K. Blakely  
Agriculture Canada
- 09:45 **The Demand Side of the Retail Meat Market**  
J. Morris  
Vice President  
Safeways Stores Incorporated  
Oakland, California
- 10:15 **Break**
- 10:30 **International Meat Trade: Trade Barriers and Trade Rules**  
M.N. Gifford  
Agriculture Canada
- Trade Trends in the International Meat Market**  
B. Wadsworth  
Director, Dairy, Livestock and Poultry Division  
Foreign Agricultural Service, USDA, Washington, D.C.
- 11:20 Questions and discussion period

(2) *Grains and Oilseeds*

Chairman: Mr. J. Drew  
Deputy Minister of Agriculture  
Saskatchewan Dept. of Agriculture  
Regina, Saskatchewan

- 09:00 **Introductory Remarks**  
Chairman
- 09:05 **Outlook for Wheat**  
Peter Fawcett  
Agriculture Canada
- 09:20 **Coarse Grains Market Outlook**  
A. Daoust  
Agriculture Canada
- 09:35 **Oilseed Outlook**  
H. Duncker  
Agriculture Canada
- 09:50 **1983 Acreage Forecast**  
J. Groenewegen  
Agriculture Canada
- 10:00 **Break**

- 10:15      **Response to Papers**  
              B. Trotter  
              Export and Domestic Grain Merchant  
              Cargill Grain
- 10:35      Questions and discussion period
- 10:50      **An Overview of World and Canadian Grain Trade Trends**  
              S. Weedle  
              Agriculture Canada
- 11:00      **Trade Prospects in Centrally Planned Economies**  
              G. Vitonova  
              Agriculture Canada
- 11:20      **Long-term Trade Prospects Outside Centrally Planned Countries**  
              Brian T. Oleson  
              Canadian Wheat Board
- 11:40      Questions and discussion period

(3) *Dairy*

- Chairman: Dr. B. Lavigne  
                          Président de la Régie des Marchés  
                          Agricoles du Québec, Montreal
- 09:00      **Dairy Outlook**  
              S.W. Borland  
              Agriculture Canada
- 09:30      **Response to Dairy Outlook**  
              R. Cloutier  
              Chef, Service de l'analyse des plans de commercialisation  
              Ministère de l'Agriculture des Pêcheries et de l'Alimentation  
              du Québec, Québec
- 10:00      Break
- 10:15      **Consumption Trends for Milk and Dairy Products**  
              A. MacDonald  
              Chief Economist Dairy Bureau of Canada  
              Toronto, Ontario
- 10:45      **Economics of Milk Production**  
              W.H. Sherwood  
              President, Dairy Farmers of Canada  
              Ottawa
- 11:15      **Dairy Programs**  
              C. McIsaac  
              Commissioner, Canadian Dairy Commission  
              Ottawa
- 11:35      Questions and discussion period



(4) *Horticulture and Special Crops*

Chairman: Mr. Lloyd Palmer  
Deputy Minister  
Department of Agriculture  
Prince Edward Island

08:30

**Outlook for 1983:**

**Apples and Other Fruit**

Richard Bullock  
B.C. Fruit Growers Association

**Potatoes and Other Vegetables**

Greg Gowryluk  
Manitoba Vegetable Growers

**Floriculture and Nursery**

Frank Kearney  
Ontario Nursery Trades

**Special Crops (pulses)**

F.G. Beaudette  
Vice-President  
Roy Legumex Inc.  
St. Jean, Manitoba

**General Commodity Overview**

N. Longmuir  
Agriculture Canada

10:00

Questions and discussion period

10:15

Break

10:30

**Advances in Horticulture Market Development**

Keynote Speaker: Frank Kearney  
Ontario Nursery Trade

11:10

Questions and discussion period

(5) *Farm Costs and Income*

Chairman: Mr. Rod Bailey  
Deputy Minister  
Manitoba Dept. of Agriculture

08:30

**Farm Inputs Situation and Outlook**

W. Jones  
Agriculture Canada

08:50

Question period

09:00

**Farm Income Situation (1982) and Outlook (1983): Provincial Detail**

G. Andrusiak  
Statistics Canada

09:20

Question period

09:30

**Farm Equipment Industry Outlook**

R.J. Peterson  
President elect CFIEI  
President John Deere  
Burlington, Ontario

09:50

Question period

10:00

Break

- 10:30            **Medium-Term Outlook — Eastern Canada**  
                  K. Russell  
                  Secretary/Manager  
                  Maritime Farmers Council  
                  Moncton, New Brunswick
- 10:50            Question period
- 11:00            **Medium-Term Outlook — Quebec and Ontario**  
                  H. Garth Coffin  
                  MacDonald College  
                  Montreal, Québec
- 11:20            Question period
- 11:30            **Medium-Term Outlook — Western Canada**  
                  T. Manning  
                  University of Alberta  
                  Edmonton, Alberta
- 11:50            Question period

### **Plenary Session III**

- Session Chairman: J.P. Connell  
                  Deputy Minister  
                  Agriculture Canada
- 14:00            **Conference Summary and Closing Remarks, Question Period**  
                  Honourable Eugene F. Whelan  
                  Minister of Agriculture
- 15:00            Food of the 1980's reception

## Opening address

*Eugene F. Whelan*

I want to welcome each one of you here today to the 48th annual Canadian Agricultural Outlook Conference.

This is the tenth Outlook Conference I have attended as Minister of Agriculture, but I know that some people in the audience have been coming here for a good many years longer than I.

Some come on the lookout for news and gossip. Others come to make the news. Still others come back every year to exchange views and ideas, and maybe even to do a little lobbying for the cause. For the regular Outlook-goers, this is, no doubt, an occasion to look back — back at the predictions of past conferences and the events of years gone by.

But the main purpose we share here, today and tomorrow, is to look ahead — ahead into the future of the Canadian agriculture sector, not just to 1983 but also to the years beyond.

One activity that is going to play — indeed, must play — a larger role in the Canadian agricultural scene in the future is market development.

We know that we have the capability to increase production by two-thirds between 1980 and the turn of the century. We discussed that last year at the 1981 Outlook Conference when we looked at the goals of our Agri-food Strategy, "Challenge for Growth".

Growth doesn't just mean optimizing production, increasing our research activities and developing our transportation and storage infrastructure. That would be a pointless exercise if we couldn't sell our products.

That's why we have chosen market development as the theme of this 1982 Agricultural Outlook Conference.

Canada is a trading nation — an exporting nation, to be exact — particularly when it comes to agricultural products. Agricultural exports rank second only to forest products in net foreign exchange generated by Canada.

This year, our total agricultural exports will approach \$9.5 billion, up from a total of \$8.8 billion in 1981. That's including about \$6.5 billion from grains and oilseeds and their products, and some \$1 billion from meat and meat products.

And just to underscore Canada's dependence on agricultural export trade, it so happens that agricultural exports account for more than half of Canadian farm cash receipts.

I'm proud to say that we in Canada are increasing our agricultural sales around the world. Last year, we had an agricultural trade surplus of \$3.2 billion. That's quite a turnaround from just 3 or 4 years ago. In the past crop year, our exports of grains and oilseeds totalled 28.2 million tonnes — up 40% from the average of the 1970s.

But let's face the facts.

Trading is a tough game, and it's getting tougher. The number of players is increasing, and so is the volume of products. Several countries have reached surplus levels in certain major commodities, of which the most notable are wheat, feed grains and dairy products. Most countries in a serious surplus position are seeing advantages in selling their large stocks on the world market at a loss, as opposed to storing them at even greater cost.

What's more, many of our trade competitors are playing loosely with the rules of the game — and it's certainly not to our advantage. That's what took up so much time at the recent GATT and OECD meetings.

We in Canada have to face up to the threat of increasing protectionism by a number of trading nations, and the problems it creates.

We also have to expect stiffer export competition when we see our biggest competitor, the United States, introduce a financing program, such as "blended credit". Under this \$100 million blended credit program, this year, the U.S. government will cover the interest costs on one-fifth of financing for export sales, to produce a lower interest rate for certain export customers.

What does all this mean for our future as an agricultural exporting nation?

Well, it doesn't mean we can't increase our share of international export trade.

But it does mean that we have to strengthen our own muscles if we want to score well in the world market. And it means that we have to develop and use all of the marketing tools we can find.

From time to time, Canada has a few small short-term surpluses of food products, just like many other countries. Unfortunately, that's often the only time that some exporters really get out and look for new markets.

But people in the rest of the world have to eat whether there are surpluses or not. So we have to develop long-term markets. We have to work hard today so we can count on reliable markets tomorrow, and next year, and 10 years down the road.

Probably the single most important tool Canada could use in future agricultural market development is the proposed Canadian Agricultural Export Corporation, better known as CANAGREX. After a gestation period of nearly 2 years, I am expecting to see the CANAGREX legislation, Bill C-85, receive final reading any day now — just in time for Christmas. And what a present it will be for the Canadian agricultural industry!

I know there are a few big companies out there that think they don't need the help CANAGREX could give them. We shouldn't, however, let that kind of thinking deprive farm marketing boards, commodity groups, individual producers and smaller agricultural firms of the help that could be provided by an agency like CANAGREX — an agency that could help them to look for new markets, negotiate, store and advertise their products.

Our Canadian agri-food companies have basically done a good job of selling their products, but there is lots of room for improvement. Too many small agencies miss out on sales because there is no integrated marketing structure in place to help them get their goods into the market and tie down sales.

But we know there is lots of marketing scope for the larger corporations too. I would like to refer, for a minute, to comments made by the former Japanese Ambassador to Canada, Mr. Suma, in a speech in Toronto about 6 weeks ago.

He said, quote: "Yet, although the Canadian government promotes the export of manufactured goods, this export-mindedness is not necessarily matched by a mobilization of public opinion and a major effort by the Canadian companies themselves. How many Canadian companies have taken the trouble to survey the Japanese demand structure? Not very many, I am afraid."

Canada supplies 100% of Japan's canola and half of its wheat requirements but, Mr. Suma pointed out, "the supply of these resources has not always been as stable as Japan has hoped".

Those comments were made despite the fact that Japan is our second largest trading partner, and we are Japan's fourth largest supplier, not counting oil-producing nations.

Comments like that make me wonder what some of our smaller trading partners might say about the export-mindedness of Canadian firms. It leaves absolutely no doubt in my mind that Canada can do better in agricultural export trade.

Agriculture Canada is anxious to assist with both domestic and export market development, and we offer a number of specific tools for this purpose. Among them this year are the \$200-million Advance Payments for Crops Program and the \$3-million Fruit and Vegetable Storage Construction Financial Assistance Program. Then there's also the newer Canadian Agricultural Market Development Fund, which helps Canadian firms to develop domestic markets and promote their agri-food products within Canada.

But the federal government's role in market development is a coordinating role. We have the capability — the market intelligence — to identify demand and predict prices for agricultural products, and then to work within our own departments, and with industry, the provinces and producers to encourage research, product development and production to meet that demand.

It is in that role that Agriculture Canada coordinates this Outlook Conference every year. And speaking of the outlook and market intelligence, I know that you are anxious to hear the forecasts for the coming year.

As you might expect, the news isn't as pleasant as we would wish. We can expect an overall slight decline in net farm income in Canada in the coming year. Prices for nearly all crops are forecast to be lower in 1983 than this past year, but should strengthen toward the end of the year. In contrast, we expect cattle prices to strengthen during the first half of 1983, and pork prices to remain strong. But both will probably decline in the second half as pork supplies increase. Demand for chicken and turkey should be strong in the first half of 1983, but may weaken in the second half of 1983.

What does this mean for the Canadian agri-food sector?

It means that the need to develop bigger and better markets for our agricultural products is stronger now than ever before.

Sure, we know there is a general belt-tightening going on all over the world, but that doesn't mean buying power won't increase next year or the year after.

In fact, the federal government believes we all must pull our belts in, quit asking for more and more, and learn to live within our means. That is what we must do to lower inflation and interest rates, and put some life back in our economy.

That's why the federal six-and-five restraint program was introduced last June.

Canadians have responded to the restraint guidelines. They are tightening their belts — accepting lower wage increases and limiting price increases — even though they may be feeling the pinch at first.



But it's already paying off. Interest rates have dropped in the past 5 months and are expected to be lower in 1983 than 1982, and we should see single-digit inflation before long. Furthermore, farm input costs are expected to fall in 1983, for the first time in several years.

The federal government set an example in the agri-food sector by limiting fee and price increases in federally regulated areas, such as fruit and vegetable inspection, to 6% this year and 5% next year. In response, nearly all farm organizations, wholesalers, retailers, food processors, input suppliers, the grocery sector and the cooperative movement have also agreed to try to stay within the guidelines.

As a result, food prices are expected to rise about 8% in 1982, and only 6-8% in 1983. That's a far cry from the 11.4% food price inflation rate of 1981.

I am very pleased with this show of support for the restraint program. I know it is difficult for many groups to hold the line on price increases, especially when they have no control over such items as energy costs, interest rates and prices that are set in the international marketplace.

But obviously — and I think most people in the agri-food sector realize this — costs, as well as receipts, will decrease if we all practise restraint.

Moreover, six-and-five works very much in favor of our market development efforts in the agri-food sector. The name of the game is 'beat the competition', and the one that can offer competitive prices usually gets the business.

Despite a world-wide drop in spending, I believe we can be optimistic about the opportunities for the Canadian agri-food sector to sell more products around the world, to develop new domestic markets and replace imports with domestic products.

But we must look to the long-term. We must identify existing demand and potential markets. And we must gear up to fill those markets.

Agriculture Canada is prepared to help the private sector to do exactly that. We'll hear more on this subject later.

But before we proceed to the many other speakers on the program, I would like to tell you a success story about industry-government cooperation in market development. It is the story of the Canadian frozen food industry, but especially it is the story of Bill Heeney, better known as the "father of frozen food".

Exactly 50 years ago, Bill Heeney marketed Canada's first commercially distributed frozen foods. His company was Heeney's Frosted Foods. His first products were frozen strawberries and raspberries, which

were sold door-to-door in Ottawa by a local dairy during the winter months because there were no freezers at that time.

Response to the frozen fruit was so overwhelming that Mr. Heeney continued to add new fruits, vegetables and, eventually, meat and fish to his product list.

But while Bill Heeney was the idea man — the marketing genius behind Canada's first frozen foods — the original scientific research was done by the Dominion Experimental Farm, here in Ottawa. It was also with the federal agriculture department's cooperation that Mr. Heeney established a freezing operation in Simcoe in 1933.

Before his retirement in 1970, he built Canada's first permanent frozen food plant, near Montreal, and established a vegetable freezing operation in Quebec and a freezing plant in Prince Edward Island. His company also processed and distributed Birdseye's products, along with his own.

The frozen food industry is, indeed, an example of the kind of success that can be achieved when government and the agri-food industry work together to put a new product on the market. Today, the 150 member-firms of the Canadian Frozen Food Association produce \$950 million worth of retail products.

It was the vision, the enthusiasm and initiative of one individual, however, that gave Canada's frozen food industry the push that started it on its way to greatness.

And so it gives me great pleasure to unveil this plaque which will be hung in the building on the Experimental Farm where the initial research of frozen food was carried out.

The inscription on the plaque says:

"In 1932, Canada's first frozen foods were developed here by Agriculture Canada scientists and marketed commercially by William H. Heeney who made it his life's work to promote frozen foods across Canada. This plaque is dedicated to his contribution to Canada's frozen food industry."

Mr. Heeney had wanted to be here today, but unfortunately he was taken to hospital a few days ago. He has asked Douglas Horner, who worked with him in the frozen food business back in the sixties, to accept the plaque on his behalf. Mr. Horner is currently the president of The Canadian Food Processors Association and president of the House of Paris Paté, and is known by a number of people here today.

Again, I must say how pleased I am to unveil the larger plaque and to present this smaller plaque to be taken home to Mr. Heeney.

## Agricultural marketing in perspective

*J.P. Connell*

As the Minister has just said, market development is really the key to expanding our agri-food industry.

A few weeks ago, when the new British Columbia Minister of Agriculture, Harvey Schroeder, made the same comment to the annual meeting of the B.C. Federation of Agriculture, the federation president replied, quote, "It's very easy to say get out and market, but there's also a cost factor".

And these days, with farm incomes for many commodities well below the cost of production, and with government deficits being what they are, the idea of incurring new expenses for market development might seem a bit unrealistic.

However, I think we must look beyond what is going into one pocket and out of the other pocket ... to look at the future health of the agri-food industry. That should make us intensify our market development efforts. Solid markets are the best weapon we can have in the fight for stability.

When you look at the way the United States and the EEC are gearing up for increased export sales, it is clear that we in Canada must also take an aggressive stance on market development if we are going to see the kind of growth and prosperity that our industry is capable of generating.

Of course, that isn't the exclusive wisdom of the federal government; provincial governments and private firms, the Canadian Wheat Board and the Canadian Dairy Commission have been actively, and successfully, pursuing export markets for quite some time.

For our part, Agriculture Canada has been active on many fronts, and I would just like to mention a few examples.

On the domestic market, we participated in the national campaign to boost the sales of wine, cheese and flowers to the Canadian hospitality industry. It was a close cooperative effort with the Canadian Wine Industry Association, the National Dairy Council, and Flowers Canada.

There was the electronic marketing seminar in Winnipeg. It attracted about 300 of the top agri-marketing people in North America, and I'm told that requests for the proceedings of the meeting have been made by 25 countries.

In export markets, our people led missions to Algeria, Saudi Arabia, Egypt, Venezuela, Mexico and Brazil.

The provinces have also been very active in export initiatives.

For example, the Ontario Ministry of Agriculture and Food has played a large role in facilitating that province's 20% a year growth rate for export sales. Last year, OMAF led 15 export trade missions, which included 120 companies.

Alberta has also got a highly seasoned export development team — some of them are former federal employees. Lately they have played an active role in the sale of swine breeding stock to Mexico and the Pacific Rim, and they are also making inroads into the vast Chinese market.

Let's look at some good recent examples of how the private sector has gained ground in the international marketplace — just a random sample.

There's the sale of swine breeding stock to Venezuela by Desy International of Quebec; H.P. Willis and Sons of P.E.I. have had some breakthroughs selling seed potatoes to Algeria and Brazil; Semex International of Guelph is active in South America and Malaysia; and in British Columbia, a perennial success story, B.C. Tree Fruits, has moved a lot of apples into the Far East.

In each of those examples, a great range of public and private organizations had to cooperate to get the job done. And all Canada benefits as a result.

Up until now, I have concentrated on the development of export markets, and it is there that we have the best chance to see our agri-food sector growing. But there is still room to improve our domestic market.

An analysis of this marketing breakthrough will be given us in the presentations of Yvan Jacques, Claude Charland and Gérard Virthe.

In closing, I want to point out that this year's theme, market development, is the first prong of the three-pronged agri-food strategy which we presented at last year's outlook conference.

Our intention is to feature the other two parts of the strategy — mission-oriented research, and upgrading the supply base — at the next two conferences. The Agri-Food Strategy is still a fundamentally sound program, and we intend to pursue it. In fact, early in the new year we will be resuming consultations with provinces and producer groups on which projects should be given top priority as the strategy is implemented.

I'll now call on Yvan Jacques to speak on the topic "Market Development: Catalyst for Growth".

## Market development: catalyst for growth

*Y. Jacques*

Mr. Minister, Dear Colleagues, Ladies and Gentlemen, dear friends:

Thank you, Peter. This is Peter Connell's first appearance at an Outlook Conference. He became Agriculture Canada's Deputy Minister in May. I am sure you will welcome this opportunity to meet him during the Conference.

You may have run across Peter Connell's name if you are the sort of person who reads the seals on whiskey bottles. It seems that part of Peter's previous job as Deputy Minister for Customs and Excise was to testify to the authenticity of Canadian whiskey, so his name appeared on the seals of these fine Canadian agricultural products.

He tells us it was not easy staying up all night writing over those bottle caps. Seriously, Peter came to Agriculture Canada with a very wide background as a manager in the private sector and the Federal Public Service. In the past 10 years, his daily experience as a purebred producer also kept him very close to the agricultural grass-roots. You will certainly find in Peter a person who knows what he wants, listens a lot, does not make conclusions on impulse but on facts, wants to get things done well, and also has a reputation as a very good negotiator.

Market Development is the catalyst for growth in the agri-food industry. That is why it is the theme chosen for our conference this morning.

Indeed, when we look at the current agricultural issues — the Crow Rate, Feed Grain Policy, Supply Management, Marketing Boards, Trade Protectionism — we see that they all relate to marketing.

And it follows that the solutions will come largely from improved market development. In a growing market, everybody is happy.

It is when markets become static, or start to shrink, that we run into the kind of issues that I have just mentioned.

As previously specified by our Minister, last year Canada's agricultural exports rose to a record \$8.8 billion. We enjoyed a positive trade balance of \$3.2 billion. This is an effort of which we can all be proud. A major share of our exports (at this time) is composed of grains and oilseeds.

Our challenge for the future is to diversify our export profile so that our industry can do its full job of creating employment for Canadians.

Canada has great potential for growth in the area of processed agricultural food products. Food exports last year totalled \$3.72 billion. Imports were \$3.1 billion in the same period. This is an indication of our opportunities.

So, what do we do to improve the situation?

Clearly, we have to redouble our efforts in export and domestic market development.

The reorganization of Agriculture Canada a few years ago was the result of a conscious decision to put more of our resources specifically into market development. It was felt to be important that all branches recognize the benefits of maintaining and improving markets for Canadian agricultural and food products.

For example, our highly respected Research Branch, under Dr. Ed Leroux, has many projects directly affecting the food industry. Some examples are restorable packages, which we see on supermarket shelves.

Our scientists are working on ways of greatly improving the energy efficiency of food processes, so that our processed foods are more competitive on the domestic and world markets.

There is the new Columbus wheat, which will reinforce our great wheat-producing capacity; there is the Natawa soybean, developed specifically for an identified Japanese market.

In the Food Production and Inspection Branch, under Dr. John McGowan, we have more than 4000 people working with you, ensuring that the quality of Canadian agri-food products remains extremely high. That is one of the greatest factors we have going for us in the world marketplace.

The disease control work of the Health of Animals Directorate and Plant and Animal Quarantine — the use of vaccines, herbicides, pesticides ... in fact, the whole range of services provided by Food Production and Inspection, all help boost the marketability of Canadian agri-food products.

Our International Affairs Group under Dr. Trant is an important link in our program of association with our offshore interests. They work closely with international organizations in encouraging the use of Canadian agri-food products.

Again, following the food system back to primary production, Agriculture Canada is playing a growing role in regional development. We are looking at the specific needs and market potentials for the agri-food industry of each province. In this area we work closely with provincial governments and the private sector to exploit those market potentials. Canada's R.O.P.'s are an excellent example of this type of cooperation.



In my own Marketing and Economics Branch, we have a range of programs directly aimed at Market Development. The Branch has three major elements. First, economic intelligence — concentrating on particular aspects of the agri-food sector, or in trade policy. They provide the analysis and forecasts that you will be hearing at this Conference and also produce the basic data which are needed to develop any sound policy.

The marketing group focuses on Commodity Market information — promotion of agri-food products, market research, technical missions, and a wide range of development projects with the total agri-food industry.

Market information, food nutrition and safety and consumer concerns are getting more attention. Market conditions are changing constantly. Consumer habits and preferences are changing constantly. Crop conditions are changing constantly. And in each case, Canadian farmers, processors and retailers must respond. You will hear the same message re-emphasized later on this morning when Gerard Virthe will talk about Canada's market opportunities. This situation demands that we quickly adopt the latest techniques such as satellite crop reporting, computerization of market information, and more sophisticated market and consumer research.

It also demands that there be greater attention paid to the competitive position of food processors, and to the special needs of the food service industry.

Thirdly, there are specific programs to strengthen the marketing chain. These include advance payments for crops, fruit and vegetable storage assistance, and the Canadian Agricultural Market Development Fund. More information on all of these programs is available at our exhibit in the adjoining room. Our people will be very happy to assist you.

Agriculture Canada, in collaboration with other federal departments (more specifically the newly structured DEA and DRIE/ITC), is making continuous efforts in the way of market development, the key to growth. But this must be a cooperative effort with the provinces and the private sector. Here I would like to thank in a very special manner my colleague C. Charland from D.E.A. for agreeing to participate in our morning session. It shows that despite some apparent overlapping, departments sometimes pull together to complement each other.

As each of us are stakeholders in the agri-food industry, we must recognize and build on the natural

bond which exists among us. This relationship crosses all boundaries. As agri-food people, we understand that.

Happily, we have a highly developed institutional framework to pursue our common goal of stability and growth. There is an extensive communication network among governments, producer groups, and industry, of which this conference is an example.

Agriculture Canada happens to be one of the organizations that is represented in all the regions of Canada. We deal with all aspects of the agri-food industry. We are the common denominator for all the sectors of the industry. We can be a lighthouse — but not the navy.

As Mr. Connell pointed out, there is a great need for coordination of our efforts, as an industry, to improve agri-food production and marketing. I know the vital role that provinces, farm organizations and the private sector play in the agri-food industry, from personal experience.

Today we may be facing serious economic conditions. A serious study of the long-term situation shows that Canada will have an enormous marketing challenge if we are to meet our full potential to expand agri-food production.

The point is not lost on our competitors. We look at the aggressive export assistance programs of the EEC, the United States, Brazil and others. We look at the efforts that are being made by many nations to restrict imports to protect their domestic industries. We see that we are indeed in a very competitive market. We are one of the few countries in the world that can respond to that need for more food. In order to succeed we must work together.

These are some of our constraints and challenges. They present us with many opportunities. There are many exciting new developments in Canada's agri-food industry. We invite you to our "Food for the 80's" reception tomorrow afternoon. We hope you will stop at our exhibit. We trust that you will enjoy the forthcoming audiovisual presentation reflecting many of the new and innovative ideas we have been discussing. Yes, these slides were put together in order to show that the Canadian agriculture is a dynamic process, not in a static state.

We have all the reasons to believe that Canada's future is bright. With your enthusiastic support our industry will be in a leadership role for many years to come.

Thank you.



# Canada's international marketing opportunities in the agri-food sector

*C.T. Charland*

The fact that Canada relies heavily on trade for its livelihood has become an understatement. Our exports account for almost one-third of our total GNP. Of the major industrialized countries, none is more dependent than Canada on the trade dimension for economic growth.

Canada's agricultural trade reached \$8.8 billion in 1981. This represents a 13.7% increase over the previous year (an increase of 6.5% in terms of volume). While imports grew by 9.4%, the positive agricultural trade balance reached a record level of \$3.2 billion.

The top 10 exports in dollar terms were wheat, barley, canola, fresh and frozen pork, flaxseed, hard spring wheat flour, live cattle, fresh and frozen beef, evaporated milk and skim milk powder.

Indications are that 1982 will be another record year, although the rate of growth may be somewhat slower, as world demand slows and prices decline in response to world competition increases.

Canada's food and agricultural exports are heavily concentrated in the grains area. Given that current world grain prices are depressed and grain exports will continue to be affected by world pressures, Canada should diversify its export base to reduce its dependence on grain exports. Exports of meat products, canned fruit and vegetables and other non-grain products have shown increases in recent years.

The Agri-Food Strategy focusses on improving Canada's production capability and expanding the agricultural base and Canadian exports. The Department of External Affairs attaches a high priority to supporting this thrust through identifying commercial market opportunities and marketing food and agricultural products abroad.

## Our role in export market development

### Reorganization

As you know, the Prime Minister announced a reorganization of economic ministries in January this year and a number of people have been asking why trade policy and export promotion was transferred to DEA from ITC. The simple answer is that trade requires full reflection in Canada's international relations. Therefore, in new DEA, greater priority will be given to trade and economic matters and aggressive pursuit of export markets.

In DEA we intend to work closely with other government departments and better coordinate their international economic activities. In particular, the former relationships established in ITC will continue and we will, of necessity, work closely with both DRIE and Agriculture Canada. Each regional office of DRIE will have trade commissioners on staff (seconded from DEA) to provide exporters with market information and assistance; agriculture specialists will continue to be assigned to posts which offer significant agricultural export opportunities to Canada.

All aspects of foreign relations have been brought together under one roof, namely trade and economics, political, cultural and social affairs. Ministerial responsibility is divided between: USSEA — MacEachen; Min. International Trade — Regan, and Min. External Relations — Lapointe.

### Cooperation with other federal government departments

This has been enhanced by:

- Deputy Minister Johnstone as Coordinator of International Economic Relations.
- The ADM, Trade Development, as Chairman of the ADM Committee for Export Market Development, on which Agriculture Canada is represented.
- An Interdepartmental Committee to manage the Promotional Projects program including PEMD and Fairs and Missions on which Agriculture Canada is represented.
- The DRIE/Agriculture Canada Export Trade Promotion Committee identifies market opportunities and plans marketing strategies, based on Canada's supply potential and commercial prospects in the various markets. This committee has now been expanded to include External Affairs and Fisheries and Oceans.

### Trade promotion instruments

**EXPORT MARKET PLANS.** One of major themes of federal government's "Export Strategy for the 1980's" is identification of priority country export markets, greater focus on Canadian industrial capabilities to supply export markets and better coordination of Canada's marketing efforts abroad.

Given limited financial resources, DEA has undertaken selective approach to export market development.

We have been involved in preparation of a series of market development plans for high priority countries and Canadian industrial sectors of high potential in those countries. To date, export plans are completed for Mexico, Australia, Korea, Brazil, Norway, Saudi Arabia and (the most recent) Japan. Each highlights opportunities in specific sectors of interest. Other plans are in preparation for France, Germany (both to come out in January) Venezuela, Hong Kong and the five ASEAN countries.

Export plans have a 2-3 year focus on export development opportunities in priority markets. They result from consultation within DEA, with other federal departments (notably DRIE), provincial governments and private sector associations.

Plans match Canadian capabilities with import requirements of our trading partners and reveal some exciting possibilities in both the developed and developing world.

The purpose of these plans is two-fold: first, to encourage companies to respond to identified market opportunities and, second, help us in government to allocate our financial and human resources among competing priorities.

To date, the following country markets have been identified as good commercial markets for food products, namely: the United States, China, Saudi Arabia, Japan, EEC, Egypt and Iraq.

Our efforts will not, however, be limited to these products and countries. Any export opportunities will be fully supported through our established programs.

**PROGRAM FOR EXPORT MARKET DEVELOPMENT (PEMD).** The program for Export Market Development (PEMD) encourages Canadian companies to begin or expand exporting activities on a cost-shared basis.

Last year PEMD-FOOD was introduced to accommodate the special needs of the agri-food sector. Since October 1, 1981 to September 30, 1982, 219 applications have been approved for \$1.8 million of assistance. While External Affairs has overall responsibility for the program, day to day administration is carried out by DRIE in the food branch and the regional offices.

PEMD-FOOD assists Canadian companies, producer organizations, marketing agencies and industry associations to develop export markets. It supports such traditional export development activities as market identification, trade fairs, incoming buyers, feasibility and marketing studies, test marketing and trial shipments.

The department recognized the specialized development needs and opportunities of the food sector and therefore PEMD-FOOD has a flexible approach. For example, assistance may be provided for the organization of commodity groups to undertake commodity promotion under appropriate circumstances. This assistance may cover capital or operating costs for special production, handling, storage, or technical promotion facilities.

Long-term market development plans and projects including generic promotion, establishment or overseas representation, as well as technical training, may also be eligible.

Another interesting aspect of this section of PEMD is that assistance to a non-sales organization may be on a non-repayable basis "in very special circumstances".

**PROMOTIONAL PROJECTS PROGRAM (PPP).** Under our Promotional Projects Program (PPP), DEA organizes and funds participation in ministerial and officials' missions to various countries. These activities include:

- the sharing of costs to companies of coordinated national exhibits outside of Canada;
- the sponsoring of outgoing trade missions to identify new market opportunities, improve trade arrangements or negotiate sales; and
- the hosting of incoming visits to Canada of foreign businessmen and government officials who can influence our export sales.

In November of this year Canadian fish and food companies participated in the national exhibit at the prestigious SIA in France. In the coming months, fair participation is planned for Foodex in Japan, and a variety of Solo and regional shows will be held in the U.S. This will be followed by participation in Anuga in Cologne, West Germany, later in the year.

Canada will again be participating in SIA in France, the Royal Easter Show in Australia, the Royal Highland Show in Scotland, the Royal Agricultural Show in England, the Palermo Show in Argentina and Equitana in Germany to promote Canada's capability in breeding livestock. Missions are planned to Japan for pork and fish products, to China for seeds and to the Middle East for apples and pulses.

**TRADE COMMISSIONERS.** Realizing that the export of food products, including agricultural and fishery products, is most important to the Canadian economy, DEA through its trade commissioners is putting a major emphasis on the promotion of the products from these sectors.

In fact, 13 Trade Commissioners and 22 locally engaged commercial officers in posts abroad and in the U.S. are devoting the major part or all of their work time to the development of exports in food products.

In addition, all other trade officials and commercial officers in more than 100 missions devote time and effort to increase our share of world markets for food products.

Some areas where trade commissioners can be of assistance to the agri-food industry are:

- as buying connections to help find sales outlets, agents, and representatives;
- for claims assistance, where trade commissioners will investigate and offer recommendations for settlement in a dispute which may develop between a foreign buyer and a Canadian seller;
- in labelling and marking regulations; on which the industry can obtain information from the office of trade development (This information is relayed and updated by the trade commissioners); and
- for market reports: Reports by trade commissioners are published regularly in Canada Commerce.

### Trade policy

**ORGANIZATION.** Trade relations, which in recent years have become increasingly more complex, require close scrutiny and careful management. In the department, two sectors under ADMs Bob Latimer and Bill Jenkins devote their time to:

- Trade relations (Latimer), which has the major responsibility for development of specific policies towards the U.S. and other industrialized countries, including the safeguarding and improving of terms of access for Canadian products. Mr. Latimer also has responsibilities for special trade relations a propos the export and import permits act including agriculture and export controls.
- Sectoral and economic relations (Jenkins) which has major horizontal responsibilities for trade, investment and development assistance, and sectoral responsibilities for Canadian economic and industrial development and environmental policies.

Mr. Jenkins manages the preparations for international economic meetings and negotiations including the November GATT ministerial meeting in Geneva, the outcome of which will occupy the department over an extended period.

**TRADE POLICY ISSUES FACING AGRICULTURAL EXPORTS.** One of the major factors affecting Canadian agricultural exports is the European Economic Community Common Agricultural Policy (CAP). The EEC offers a great potential market but exports are often faced with quotas, import permit requirements, various levies and duties, and high tariffs. Canadian exports must compete in other markets with EEC products which benefit from export restitutions. It must be noted, however, that similar policies in agriculturally based countries have common objectives. All countries aim to become self-sufficient in their requirements, to have a stable supply of agricultural goods which can be supplied to consumers at reasonable prices, and to provide a reasonable and stable income to the producers. The EEC is but one example.

To achieve these objectives it is often necessary for these countries to utilize quotas on imports, import levies and establish tariff and non-tariff barriers to protect domestic industries. Similarly, surplus production is often disposed of at depressed or subsidized prices. All of these have disruptive effects on world markets.

International forums attempt to govern trade and harmonize the trading environment through international disciplines. The GATT is one forum where efforts are made to achieve freer trade and eliminate distortions. Trade in Agricultural goods is a complex subject within GATT as the objectives noted above are difficult to discredit. In spite of the numerous exceptions, progress has been made towards reducing tariffs and encouraging freer trade.

As tariff walls begin to fall, it is incumbent upon all agricultural producing countries to strive to maximize the productivity and efficiency of their output in order to remain competitive in their own domestic markets as well as abroad. This in fact is one of the objectives of the Agri-Food Strategy.

Non-tariff barriers are often cited as being impediments to trade. Again the objectives of these NTBs are often "honorable" as they are intended to protect the health and safety of the consumers. They are, however, sometimes perceived as being in place to protect the domestic industry of the importing country.

Health and sanitation requirements are frequently the difficulties some Canadian food and agricultural exports must face in Japan. Japan has recently liberalized some of her requirements, thereby easing trade. Further negotiations are currently underway with the Japanese to ease other regulations and to recognize Canadian standards and inspection practices.

At a time when the global economy is depressed, competition for markets intensifies and new marketing tools are introduced. Credit is being singled out as one of these tools even though less than 3% of world agricultural exports are currently supported by credit. The U.S. has recently introduced a blended credit program to assist U.S. agricultural exports of wheat, soybeans and corn. While this is a market development tool, it is also being utilized to counter the EEC restitution policy. Credit for agricultural exports has become a subject of discussions within the "OECD Arrangement for Officially Supported Export Credits", which had previously focussed primarily on capital goods and steps are being taken to curtail the proliferation of such programs.

Because of Canada's dependence on agricultural trade and the importance of agricultural trade to the economy as a whole it is important that international disciplines are followed. Canada will continue to seek solutions to current trade problems and to seek means by which distortions and disruptions can be resolved.

At the recent GATT ministerial meeting, ministers reviewed the present and medium-term outlook for food and agricultural products. Members of the GATT have adopted a major work program to tackle

the difficult problems of agricultural trade. A new Committee for Trade in Agriculture has been established to develop recommendations to facilitate the further liberalization of trade in agricultural products. This will cover all aspects of export assistance and import protection. Their report will be submitted to the GATT Council in 1984.

As a major exporter and importer of agricultural products, we in Canada have a strong interest in finding solutions to the problems of agricultural trade and we shall be actively involved in this work program.

## **Conclusion**

Due to the worldwide economic pressures all agriculture and food producing countries are seeking ways to ensure self-sufficiency, increase producer returns and expand exports. The competition in world markets will continue to be strong but the recent strengthening of the Department of External Affairs with the inclusion of trade responsibilities will help Canadian exporters respond to these challenges.

I've appreciated the opportunity to present DEA programs. If there are any questions, I will be pleased to respond.



## ANNEX

## TRADE COMMISSIONERS ABROAD

|                                                    |                                                  | Trade<br>Officers | Commercial<br>Officers |
|----------------------------------------------------|--------------------------------------------------|-------------------|------------------------|
| <b>EUROPE</b>                                      |                                                  |                   |                        |
| West Germany                                       | (Bonn)                                           | 1                 | 1                      |
|                                                    | (Hamburg)                                        |                   | 1                      |
| Belgium                                            |                                                  |                   | 1                      |
| EEC                                                |                                                  | 2                 |                        |
| France                                             |                                                  | 1                 | 1                      |
| U.K.                                               |                                                  | 1                 | 2                      |
| Italy                                              |                                                  | -                 | -                      |
|                                                    | (Milan)                                          |                   | 1                      |
| Sweden                                             |                                                  |                   | 1                      |
|                                                    | Total Europe                                     | 5                 | 8                      |
| <b>U.S.A.</b>                                      |                                                  |                   |                        |
| Washington                                         |                                                  | 2                 |                        |
| Boston                                             |                                                  |                   | 1                      |
| New York                                           |                                                  |                   | 1                      |
| Philadelphia                                       |                                                  |                   | 1                      |
| San Francisco                                      |                                                  |                   | 1                      |
| Seattle                                            |                                                  |                   | 1                      |
|                                                    | Total U.S.                                       | 2                 | 5                      |
| <b>PACIFIC-ASIA</b>                                |                                                  |                   |                        |
| Australia                                          | (Canberra)                                       | 1                 |                        |
|                                                    | (Sydney)                                         |                   | 1                      |
| Korea                                              |                                                  |                   | 1                      |
| Hong Kong                                          |                                                  |                   | 1                      |
| Japan                                              |                                                  | 2                 | 3                      |
|                                                    | Total Pacific-Asia                               | 3                 | 6                      |
| <b>LATIN AND CENTRAL AMERICA<br/>AND CARIBBEAN</b> |                                                  |                   |                        |
| Argentina                                          |                                                  |                   | 1                      |
| Brazil                                             | (Sao Paolo)                                      | 1                 |                        |
| Mexico                                             |                                                  | 1                 | 1                      |
| Venezuela                                          |                                                  | 1                 |                        |
| Trinidad and Tobago                                |                                                  |                   | 1                      |
|                                                    | Total Latin and Central<br>America and Caribbean | 2                 | 5                      |
|                                                    | Grand total                                      | 13                | 22                     |

# Canada's domestic market opportunities

Gerard Virthe\*

Mr. President, ladies and gentlemen:

I have been asked to give some ideas as to how we can improve food marketing strategies for the Canadian market. Over the last 10 years, my company has been involved in more than 1500 projects concerning the development and launch of food products, food retailing and food service establishment outlets in Canada. As a result, we have been able to observe some of the major differences between successful and unsuccessful organizations in the area of the food industry.

We all know that the market has been changing very rapidly over the past few years and that it will continue to do so. The food business community is bombarded with conflicting information regarding the consumer and future trends. It is a fact that it is becoming increasingly difficult to function in a fast-changing and hectic world. However, I believe that the present recession has given some people in the food business a golden opportunity to give up on the consumer. If we were to believe what we hear every day, we would soon be living on potatoes every day and hamburger once a week. I believe that, barring a calamity, the food business in the 80's will be on the threshold of some of the most lucrative and exciting marketing opportunities in the history of the country. However, the Canadian food manufacturers, producers, and retailers will see the demise of "business as usual" within the next few years. In fact, profound changes have already occurred.

Two major changes affecting marketing in Canada are in the areas of consumer evolution and food distribution.

A segment of the consumer market has recently shifted very rapidly in directions that many executives in the food business sector failed to anticipate. It is often heard that information pertaining to consumer trends is not as readily available in Canada as it is in the U.S. In my opinion, this is merely a cop-out and a refusal on the part of many to invest time and money into researching the proper facts. For instance, most executives still do not know that one or two-member households now account for half of the total households in Canada. You do not have to spend much money to find out this kind of information; Statistics Canada will give it to you for free. It is striking that many companies or organizations will invest large amounts of money in new equipment or

in big advertising and promotional campaigns without properly researching the market reaction and what the market possibilities are in the first place. Fortunately, this situation is changing, particularly as a result of the leadership given by many large food manufacturers in Canada. However, I think there is still a strong need for food executives at all levels to understand that they have to spend much more time and money researching the consumer. It may look expensive, but remember that research is like insurance: it is always too expensive before you have an accident, than it is after. The end result is that, if you look at what has been happening in Canada over the last 10 to 15 years, most innovations in food products have come from outside of the country. This in itself is not a bad thing except that Canadian companies run the risk of losing market shares. What strikes me most is that often, as the expression goes, the "writing was on the wall". Some of the innovative products that have recently been introduced into the market were developed outside of the country and marketed there for quite some time. I could give you dozens of examples of now successful products in Canada that were suggested to companies here only to be refused with a universal excuse: the market is not ready for this product. Very often some digging into the facts, some consumer research and a little more risk-taking would have done the trick.

Earlier, I told you that the market is changing rapidly. I would like to give you a few pointers about the new consumer market and how it will affect food products and food retailing outlets.

In this respect, there are two major factors to consider. The first factor we call the "new demographics" and the second the "values of a new consumer".

On the socio-demographic side, several elements will affect business in the 80's. There are:

- A very slow population growth that will be mostly concentrated in the Toronto, Montreal and Vancouver trading areas.
- A declining fertility rate which will have an impact on the size of the family. The average family size is now less than three people, and is projected to reach 2.6 at the end of the 80's.
- The population is getting much older. As a result, each decade from 1950 to 2000 may be characterized by a "core market focus", that is a market which reflects the largest proportional growth.

\* President and General Manager, The Cogem Group of Companies, Montreal



In the 80's, the population will change from young to middle-aged, but not very old. These changes in the age structure pertain to people already born, and they will occur no matter what happens to fertility rates.

- Contrary to the decrease in the family size, the number of households will grow, but household composition will continue to change. In Canada, the non-traditional households, that is singles, one-parent families, and so on, now account for 35% of all the families. The traditional two-parent family with two children is increasingly being replaced by alternative groupings. Between 1976 and 1981, the number of married individuals in Canada increased by 1 million while the number of singles, divorcees and widowers increased by 850 000, an almost identical amount.
- The education level will continue to grow and it is expected that more than 12% of the population will have attended university by 1986.
- More and more, Canada is becoming "cosmopolitan" in nature. Already at the start of the 70's, about one quarter of the population was of ethnic origins other than British or French. In Canadian cities, this melting pot of ethnic backgrounds is evident and has significant market and cultural ramifications.
- All totalled, the "typical" Canadian family in the 80's will have no more than two children at home; will have two wage-earners; will be headed by a person between 30 and 45 years old; and will have more disposable income for discretionary spending, at least when the recession is over.

#### CHARACTERIZATION OF DECADES

| Decade    | Core market focus          |
|-----------|----------------------------|
| 1950-1960 | Babies and young children  |
| 1960-1970 | Teenagers and young adults |
| 1970-1980 | Young married              |
| 1980-1990 | Early middle agers         |
| 1990-2000 | Middle agers               |

The new demographics will lead to a splintering of market sub-segments. No longer will we be able to sell to a vast, broad, so-called middle-class segment while ignoring the fringes.

In terms of marketing and opportunities, food firms in the 80's must be able to cater to the specific needs and wants of particular market sub-segments. There are several that should be mentioned as their growth will create tremendous opportunities for enterprising retailers and manufacturers.

One of the major growth markets in the 80's will be comprised of early middle-agers. As the post World War II baby boom generation matures, the 35 to 49 age category will become one of the fastest growing segments of the market.

However, you must realize that this old generation is sensation-oriented, educated, affluent, adventurous and many are experienced in taking drugs. This segment will spend money on travel and dining out. They will want luxury cars, new furniture, new clothes and other things that make life more enjoyable.

This segment is rich. In the U.S. for instance, more than half of all discretionary income is spent by mature market homes which represent one-third of all households.

The mature generation will exist alongside a large number of single persons. The singles will have "money to burn" on spur-of-the-moment vacations, around-the-clock service, sporty cars and fancy foods. The singles market will be well-off, and prices will be of lesser importance for them. They will buy on impulse, want services and will be ready to pay for them.

Another very important market will be the older shopper, the over 65 group. This segment will increase by more than 20% by 1990.

Senior citizens will be better off in the 80's and will represent a far from negligible share of retail expenditures. Older consumers tend to be more loyal to their stores than younger consumers but they have special needs that must be satisfied.

Older consumers spend a greater percentage of their income on food than those under age 65 and more per capita on food at home than any other age group.

They have dietary needs, transportation problems, menu-planning problems. They want to buy single-service items and small-quantity packages of meat and produce, for instance.

Finally the most dramatic lifestyle development of the 70's and the 80's has been the ever-increasing number of working women. In the 80's more than half of Canadian women will work, even more in younger age groups.

To hear some people talk about the working woman today, one might think that she is a new third sex. She is not. But, as the editor of *Woman's Day* was saying recently, she is first and foremost a woman. However, the woman who works today is multi-dimensional. She is a girlfriend, a wife, a mother as well as a proud earner. There are numerous life situations that differentiate one working woman from another but there are some characteristics that practically all working women share. Working women

have less time for everything and more spending options. The full-time working wife may work an average of 60 to 70 hours each week both on the job and at home.

This affects the products and services she wants and explains why almost all working women have traded time for money. As for stay-at-home women, they are involved to a greater degree in outside activities which also cut down on their time.

This is why working women and their families are heavier users of restaurants, convenience foods and convenience stores. They vote for slow cookers, microwave ovens, oven-to-table cookware, freezers for do-ahead meals, etc.

Are we doing everything we can to reach this market?

Remember that working women have now become your primary market and are close to dictating the way you will do business. In the 80's you will have to offer all women the goods, services and shopping conveniences working women are now asking for.

Finally one last remark about working women. Marketers should remember that the rise of the double-income family is one of the most significant changes to hit consumers marketing in a decade.

This rapidly growing market will become the cream for business. They buy everything from doughnut makers to hamburger machines. Quality, variety and brand names are more important than price. Time-saving is for them a major selling point. Many will tell you "if it cannot be made in half an hour, we do not consume it".

These are people who want instant gratification and with both working, they can almost have it. They tend to buy "quality of life" products and other self-improvement programs. They also respond to the unusual and are potential buyers of luxury and specialty foods. In short, a very important market to keep watching.

At the social and psychological level, several factors will shape the future of marketing. What we now call the "Me Generation" has arrived. It is a focus to self. The consequences are many, including less pressure to conform, tolerance of diversity, single persons and childfree households, personalization, permissive sexual attitudes, receptivity to drugs, concern for privacy and safety, inner gratification, and the need for fun and enjoyment to compensate for unfulfilling employment.

Surveys in the U.S. show that one in five Americans still holds what we call old values of savings for future gratification. About 40% are looking for an awful lot today, and the rest is still trying to figure out where they are going. No comparable figures are available in Canada, but experience shows we are not far behind.

As people become self-centered and hedonistic, they tend to adopt the motto "live for today". Having rejected self-sacrifice to pursue self-development, the consumer will not trade today for an uncertain future. This is also a reaction to technology. In a constantly fast-moving world with a new world-crisis every month, today's consumer has to live so fast just to keep up that contemplating tomorrow is almost a gratuitous exercise.

People will be very absorbed combining various activities to get the most out of the moment. For the person on the go, time is very important. This is why time-saving goods and services will boom in the near future.

A consequence of this fact is the growing demand for nighttime services by North Americans, and this provides opportunities to develop new markets. As an example, consider the convenience store chain 7 Eleven. Twenty years ago 7 Eleven Stores stayed open 16 hours a day. Last year almost 85% of the nearly 7 thousand 7 Eleven outlets were doing business 24 hours a day, and actually conducting 20% of their business between midnight and 7 a.m.

Canadians will become more respectful of the environment and the trend towards reverting to a more natural, simpler life will go on. This should push products which are durable, efficient and of high quality.

There will be competition to find ways to express one's higher socio-economic status, but the status symbols will change. Canadians will continue to desire the new, different and exciting. Marketing will have to be bolder and innovative, perhaps even shocking, to attract people's attention and hold it.

More and more consumers will be underemployed, in relation to their education level. They will seek satisfaction from activities and products that not only get them away from the workplace, but give them a greater sense of worth and self-esteem, since these may be increasingly hard to come by on the job. More emphasis will be placed on ego-enhancing products and services, from wine to sporting goods. Many consumers of the 80's will have experience with drugs and other mind-altering substances and will try to escape reality. Products and ads will have to provide these consumers with a sensory experience if they are to be effective. Marketers will have to find answers to this new "escapism". A good example is the performance of Harlequin Books and of the escapist shows on TV (Three's Company, WKRP in Cincinnati, etc...).

The concern for health, physical fitness and appearance will continue to be high, especially in the middle-age group. Products and ads directed at these aspects of the mature generation will receive favor.

This market will try to develop its creativity. Interest will be high for the arts, and all do-it-yourself activities, including fancy cooking. Nostalgia will continue to proliferate and there will be an interest in collecting things and doing them the old way.

The result of all these changes will increase the social diversity of Canada. There are and will be a variety of sub-groups with substantial buying power. They suggest a new kind of market segmentation, a new marketing approach based on diversity and selectivity.

Products, ads and stores will have to be developed for specific sub-groups which will be defined according to their lifestyles. The media to reach those people will have to be reevaluated, particularly the mass media such as TV. Those mass media will become less efficient to reach particular sub-groups. Marketers will have to find new ways to reach the market, such as specialized magazines, electronic catalogs, electronic at-home shopping services and so on.

Two other factors will influence marketing in the 80's. These are inflation and the energy crisis.

It is a fact that with the inflation we have seen, price becomes more important. However things are a little more complicated than they look at first.

There are growing signs that North-Americans are becoming more like Europeans in their response to inflation. It means a higher propensity to put money into goods rather than into paper; a greater interest in quality extending even to a willingness to pay more for it; and the choice to buy fewer but better goods, in short a more "value oriented" consumer.

Today, for the new consumer value means quality, variety, freshness and service at a reasonable price but not necessarily the lowest. Moreover, recent surveys show that consumers have a psychological need for some form of luxury and even more so during a recession. In other words, if you cannot afford a trip to Hawaii for your vacation, you will probably spend more on fancy foods, for instance, to compensate. Consequently, it should not come as a surprise that gourmet foods have been one of the fastest growing product categories recently in North America, and will be for a long time.

The energy crisis, or the energy prices if you prefer, will also keep on changing consumer behavior. It looks like consumers tend to shop the big shopping centers less often now but buy more when they do. The future of neighborhood stores is consequently assured. To save time, but also now to save gas, consumers will split their purchases between large regional type stores and neighborhood stores for their daily needs.

In terms of food consumption, several factors should be pointed out.

The quantity of food consumed per capita is stable and will not increase. The total quantity of food consumed in Canada will consequently stay about the same as it is today, or will increase very slowly.

The new consumer has attitudes towards food consumption that are changing very quickly. Nutrition has become almost a national hobby. However, even if the consumers' new health concerns have created a shift in the type of products they now purchase, for instance more fruits and vegetables and less sugar, one thing is sure, they will still want convenience foods. Even if the new consumers do spend less time actually preparing meals, they are still better educated and more sophisticated.

They have tried many new dishes outside the home, including foreign dishes, and have become more interested in trying new things. As a matter of fact, almost half the people using lots of convenience foods call themselves "good cooks". When one draws a parallel with the tremendous increase in the sales of kitchen and cooking utensils, it is fair to conclude that the new consumer is still cooking and still interested in good eating. However, these cooking activities become concentrated in time. The same working mother who repairs to McDonalds three times a week may settle down on the weekend for a little gourmet cooking. In other words, the new consumers will be looking for sophisticated meal preparation once or twice a week. The rest of the week they will accept and look for quick answers, be it a hamburger at a fast food outlet or a convenience item that they will put in the microwave oven at home.

It is to these opposed needs that you will have to cater and it is where the opportunities are.

In this battle, food-away-from-home, like it or not, is gaining. You all know that food-away-from-home has been growing rapidly in Canada over the last few years. Today it accounts for about one third of total food expenditures, which translates into one meal out of five eaten outside the home. I do not think that this tendency to eat more often outside the home will change in the 80's. There may have been a short contraction during the recession, as happened during the last big recession in 1974 in the U.S., but as soon as things improve, the food-away-from-home market will start increasing very fast again. This market is supported by all of the socio-demographic and lifestyle characteristics of the consumer I described earlier. Singles, working women, middle-age groups and so on are all, and for different reasons, primary targets for the restaurant business.



As an indication of the trends let me just give the example of coffee. Right now in North America about 28% of all coffee consumption takes place away from home. Between 1975 and 1979, away-from-home coffee consumption increased 34.9%. During the same period, at-home coffee consumption declined 16.4%.

I could spend a lot of time describing how the food-away-from-home business is growing and why it will keep growing. Let me just say briefly that the fast-fooders in particular have been very good marketers and have taken note of the consumer changes I described earlier. With heavy promotion and advertising, menu changes, strong financial backing from important food manufacturers and more and more mechanization and standardization in the restaurant outlets, they are very well equipped to go on fighting with the food retailers.

As a result of all these changes, food retailers, and particularly supermarkets, are in a bind. They are attacked not only by the restaurants but also by many new competitors including convenience stores, food specialists, farmers' markets and so on. Convenience stores and food specialists have been among the fastest growing retail firms in North America for the past few years and I expect that this situation will continue. The convenience store is a perfect answer to the time problem of today's consumers and we can expect that it will evolve even more. For instance, many convenience stores are in the process of being transformed into what we call super-convenience stores, that is a convenience store offering fast foods and products for on-the-spot consumption.

Specialists, that up until a few years ago had all but disappeared, are gaining popularity again. The supermarkets have done their jobs so poorly in many instances that they turned away consumers who wanted a more exciting place to shop. As a consequence you will see a proliferation of fruit stores, gourmet shops, etc.

In the middle the supermarket is changing and will be changing more in the years to come. Many supermarkets will improve their perishable foods departments and in-store bakeries, fancy foods boutiques and so on. They will almost become gourmet supermarkets, as is already happening in some parts of the country and in the U.S. As an example, gourmet supermarkets in the U.S. last year had a 29% sales increase when the average supermarket had only 9%.

This proves that even during a recession, consumers are looking for variety, freshness and quality rather than price only.

It is a fact that food retailers themselves will have to spend considerable time, and soon, to know the clientele better. More and more we will find a diversity of sub-groups that will need to be served by a variety of store formats. Tomorrow's consumers will not fit one global model. They will not necessarily be concentrated among the traditional middle class family of the 60's and 70's with a house, two cars, three kids, one dog, one color TV, one black and white TV, and with the wife at home. And more often than not food retailers advertizing and promotional campaigns give the impression they are still clinging to this model at the expense of other groups in our society.

Food firms will have to serve different markets in the 80's, from the need-driven consumers who are very concerned by price to the achiever and experiential consumers for whom price is much less important. These segments have always existed of course, but they are now much more important. This is why no single store will be able to be all things to all people, as the supermarket may have been in the 60's and the 70's. This may be the biggest change for retailers in the 80's.

For manufacturers and producers it is quite a challenge also. Not only is the consumer changing quickly but also the distribution system is. The retailing of food products in Canada is now concentrated in the hands of a few large firms which have become very sophisticated. They will demand that their suppliers submit products for sale that have been well researched and planned. Too often we hear complaints from manufacturers who say that the difficulties they have are due to the huge amount of power that food chains have in this country. It may have been the case in some instances but I would tend to say that too often manufacturers have not been doing their job properly. For instance in Canada also, we have a tendency to launch thousands of me-too products every year that retailers and consumers have really no need for. I do not think it is unfair from the standpoint of the retailer to refuse to list a new brand of any food product if they have 15 brands on the shelf already. If, on the other hand, you come up with Canadian products that are really new and innovative, well researched, planned and promoted, you stand a much better chance of being accepted by the retailer as well as by the consumer.

In the end, anyone who makes this analysis should come to the conclusion that there are many opportunities to develop specific products for specific market segments in Canada. For instance, every day we hear from the consumer that they want smaller sizes and single serving packages. And this not only from

the singles, but also from other segments of the population that now belong to what we call the "grazing society", a society that eats at all times of the day, each member of the family alone. It is striking that many products are still offered in large packages more suitable for families with three or four people than for single persons.

As a conclusion I would say that the consumer goods market will continue to be dynamic in the 80's. It will be a different market. This market will ask for quality and will support consumerism. This is a market that will look for national brands and well established stores. Secondary brands will suffer. Advertising and promotion will remain a very important part of the marketing strategy. In the difficult economic climate that we are seeing right now, some firms and organizations will be tempted to cut their promotional budgets. Experience shows that those who do it will see their share of market decreasing.

Spending and consumption patterns will no longer follow social classes. Marketing will be more difficult. It will become more and more important to segment the market differently, particularly according to lifestyles. Few firms have done this up to now. This market will not only be a new market, but also a

market looking for quality, service and convenience. Smaller package sizes, for instance, will be required more and more and there will be a good growth for products aimed at family units with one or two people working. More sophisticated prepared meals will sell well. In short, be creative. You can certainly help consumers and develop products to meet their expectations, particularly high margin products and top-of-the-line commodities.

The demographic trends are also expected to fuel growth in the 1980's for the restaurant business, in which all leading food processors have a significant stake. Food processors will have to count on sales to restaurants and institutions to capture more of the consumer's food dollars.

The future for food processors and producers in Canada in the 80's can be much brighter than many people say. There are lots of opportunities to develop products for specific sub-segments of the market that will be big enough to make the operation profitable. Keep your eyes open and monitor the changes in consumers' attitudes very closely. You can then prepare yourself for a bright future if you make sure to swing the right direction and if you are not afraid to stand out in the crowd.

Thank you very much.



# The Canadian economy in 1983

Peter Gusen\*

An accurate agricultural outlook is a crucial element in drawing up projections for Canada's economy in the coming year, so I have come here today to gather expert opinion to help us in producing our forecasts. An accurate economic forecast is a crucial element in the food and agriculture industry's planning process, so I have also come here today to offer opinions on the path the economy will follow in the coming year. You will perhaps notice the distinction I made between the expert opinion I will gather and the opinion, plain and simple, I will offer. The past year's experience has taught economic forecasters humility, if nothing else.

As well as supplying specific information on how various economic indicators are expected to perform in the months ahead, an economic outlook talk unavoidably sets a tone or a mood for other discussion. But the forecast I intend to talk about this afternoon doesn't lend itself to setting a clearly joyous or a clearly gloomy mood. I have, in the comedian's words, some good news and some bad news.

On the optimistic side, inflation is predicted to be much lower next year — down to 7.7% as compared with 10.5% this year and 12.5% in 1981. This will be the best price performance the economy has turned in since 1976 — and the improvement will continue into 1984, even after the pace of activity picks up once more. The 5.2% rate of inflation predicted for 1984 will be the lowest since 1972. Inflation has been, in many people's eyes, the country's number one economic problem. This type of forecast must then clearly be regarded as encouraging.

On the other hand, as economists are fond of saying, the unemployment rate is forecast to average 12.7% next year, as bad as the miserable peak reached last month, and well above this year's annual average 10.9%. This year's figure itself represents by far the highest level of unemployment suffered by Canada since the great depression of the 1930's. Even the stronger performance of 1984 is not expected to pull the average unemployment rate any lower than 11.7%.

Why is inflation improving so nicely, and unemployment remaining such an intractable problem? The answer, in both cases, is weak demand — consumers, business, foreign customers and governments are not in a position, or in a mood, to buy.

This chart illustrates the increases or decreases in the volume of demand, or the growth in real gross national product. If 1977, 78 and 79 can be taken as "normal" years, you can see that demand has been weak lately. It scarcely grew at all in 1980, and in 1981 failed to show the catch-up spurt which usually follows a recession, as it did in 1976. This year demand collapsed, falling by 5.2% and it is forecast to recover less than half of this lost ground in 1983, when real GNP growth of only 2.3% is expected. Finally, in 1984, a year of noteworthy demand expansion is expected when economic growth of 5.5% is predicted.

Faced with this weakness in demand, producers had to cease or curtail production. In fact, they have gone much further, meeting much of the remaining demand by selling goods off the shelf and not replacing them. This double-barrelled blow to production — lower demand and running down of inventories — means that fewer production workers have been needed. Employment dropped by 3%, or 300 thousand jobs this year. But while producers have needed fewer workers, workers have still needed jobs, and the labor force has consequently grown by 60 thousand in 1982. The result of 60 thousand more people looking for 300 thousand fewer jobs has been the huge rise shown in the unemployment rate. The slight improvement in demand in 1983 will not, unfortunately, lead to many new jobs. The hundreds of thousands of workers now on short hours, on work-sharing plans and on temporary layoffs, who are not counted as unemployed, will be used to produce the additional goods and services demanded in 1983. Not until 1984 will this underemployed group be sufficiently utilized to make a noticeable dent in the ranks of those officially classified as unemployed.

The reluctance and, in some cases, inability of buyers to buy, has had its benefits on the price front. Producers have found it very difficult to pass on cost increases or to raise their margins in the face of such weak demand. Price inflation, in some areas, has consequently moderated. But inflation of other commodities still remains stubbornly high in Canada. Items less sensitive to market forces have continued to show large price increases. Energy costs at the consumer level provide an outstanding example. They have flared up 15, 26 and 21% in the last 3 years. Some relief from this pressure is finally in sight. In 1983, Canadian crude oil prices will approach their cap with respect to world prices, and world prices will remain stagnant. Consumers as a result will be burdened with "only" a 13.8% energy inflation rate next year and an even lower 6.3% in 1984.

\* Director, Provincial Forecasting, Conference Board of Canada

Wages are a second cost item that will ease over the next 2 years. The 12% wage inflation of 1981 has already subsided to 9.7% this year. Wage pressures in 1983 and 1984 are projected to abate further, to 8.0 and 7.3% respectively. This deceleration in wages will still leave workers with slightly more purchasing power, since prices are slowing down more steeply. This aspect of the forecast is of particular interest, since it represents a departure from the real wage loss experience of the 1978-82 period.

If you accept the view that weak demand is responsible for our high unemployment and for part, at least, of our lower inflation, the obvious next question is "why has demand been so weak?" In this case, I need not resort to the one hand and the other hand, for a single cause stands out clearly: high interest rates.

High interest rates have meant that consumers would rather save than spend. High interest rates have meant that producers will not borrow to expand their facilities. High interest rates have pushed governments into large deficits merely to service their debts and have limited their ability to stimulate the economy by extra spending or tax cuts. High interest rates have had similar effects on other countries and have reduced their appetite for Canadian goods and services.

The recent downward movement in rates is therefore encouraging. The 1983 forecast of an average 14% prime lending rate, while a little higher than currently prevailing, is nevertheless, well below the 16.3% average of 1982. 1984 looks even better, with an average prime rate of 12.3%.

These rates are not low enough, however, to bring about a strong resurgence of demand. They are high compared to those of the mid-1970's. They are high compared to the projected rate of inflation. They are very high compared to the kind of rates needed to get the economy back up to its potential.

When I speak of potential, I refer to the amount of goods and services the economy could produce if all of its resources — labor, capital and natural wealth — were fully employed. The size of the gap between actual and potential is perhaps the ultimate test of our economic performance. If we measure up to our potential, there will be an abundance of goods and services available for consumption and for reinvestment.

This slide illustrates the costs of high unemployment, of labor, capital and resources in terms of what we've had to give up. The volume of consumption per capita, which had been growing steadily, tapered off in the 1979-81 period, then fell sharply in 1982. This year the average Canadian is consuming considerably less than he did back in 1978. Next year, we will see more of the same. The cost of falling short of potential is, quite clearly, a lower standard of living. A rise in consumption per capita is expected as the country moves closer to its potential in 1984, but imagine the standard of living we might be enjoying if the trend of the mid- and late-1970's had continued into the 1980's.

The potential to turn out goods and services is determined in part by the number and quality of factories and machines available for the task. Business investment in plant and equipment expanded rapidly in 1979, 1980 and 1981, but once these facilities were in place, demand was insufficient to keep them operating. As a result of this idle capacity, and other factors, investment plunged in 1982 and is forecast to decline once more next year. Not until 1984 will our capital stock begin to grow again.

For many agricultural commodities domestic prices are merely world prices translated into Canadian dollars through the exchange rate prevailing at the time. As a result, the incomes of most grain and livestock producers are crucially dependent on exchange rate movements. The exchange rate is influenced by a wide variety of factors, which will in our view, more or less, offset one another over the next 2 years. A very modest appreciation in the U.S. value of the Canadian dollar is expected, from an average 81 cents this year to 82 cents next year and 83 cents in 1984.

The facts and figures of our forecast are now on the table for your discussion. The tone of the forecast is not, unfortunately, one of unbridled optimism but neither is it one of increasing pessimism. Things have certainly not been good, economically speaking, this year. Next year's forecast suggests that at least they won't be any worse, and, in certain areas, they will be a little better. The outlook for 1984 is for improvement on virtually all scores. On that upbeat note, I'll turn the microphone back over to the chairman.

FIGURE 1. INFLATION (Consumer Price Index)

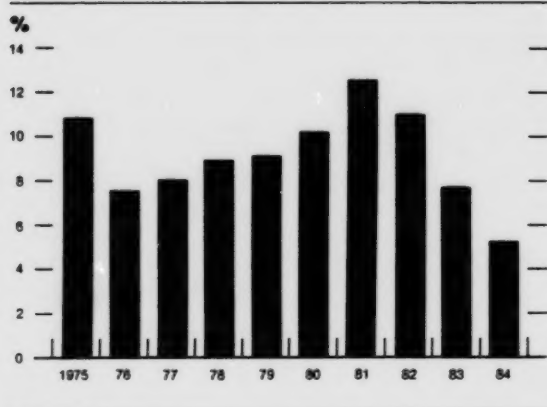


FIGURE 4. ENERGY PRICES

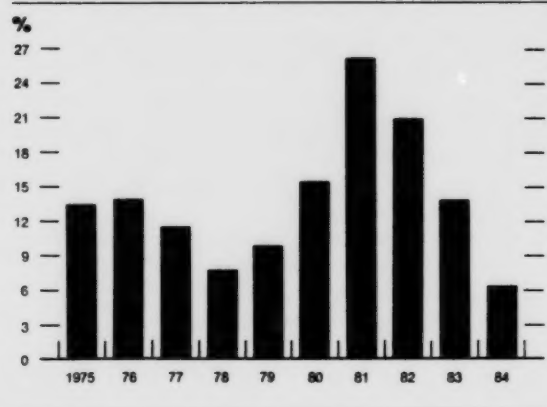


FIGURE 2. UNEMPLOYMENT

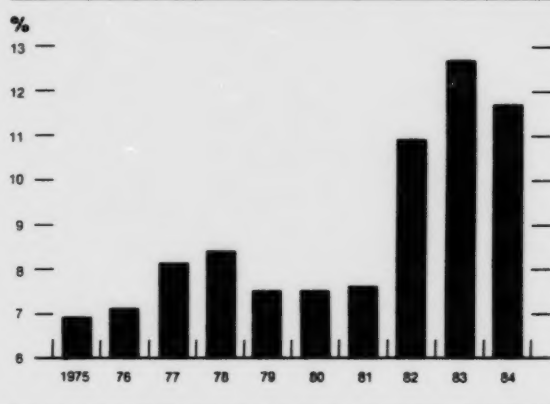


FIGURE 5. EARNINGS AND INFLATION

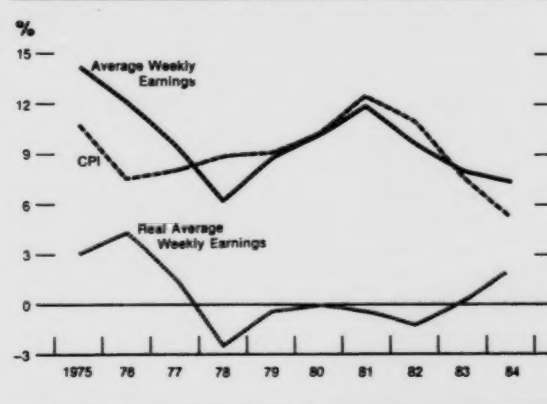


FIGURE 3. DEMAND (Real GNP)

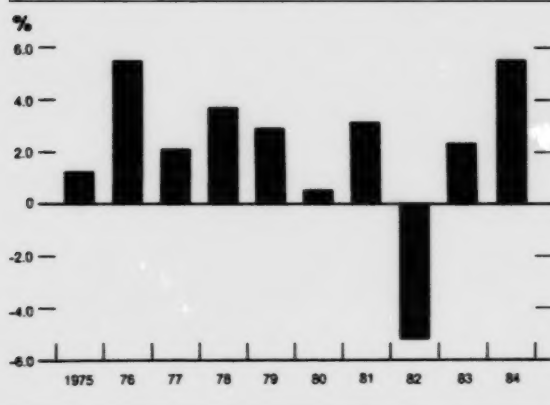


FIGURE 6. INTEREST RATES (Prime Lending Rate)

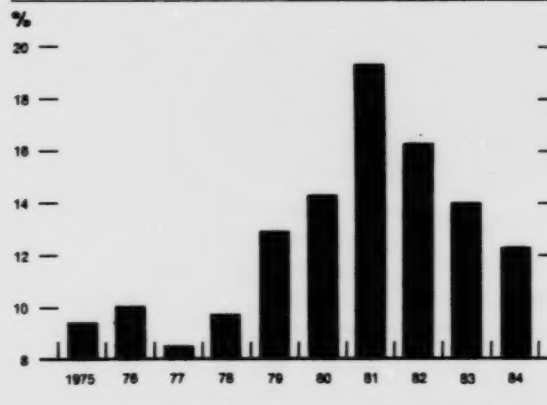


**FIGURE 7. REAL CONSUMPTION PER CAPITA (Thousands of 1971 Dollars)**

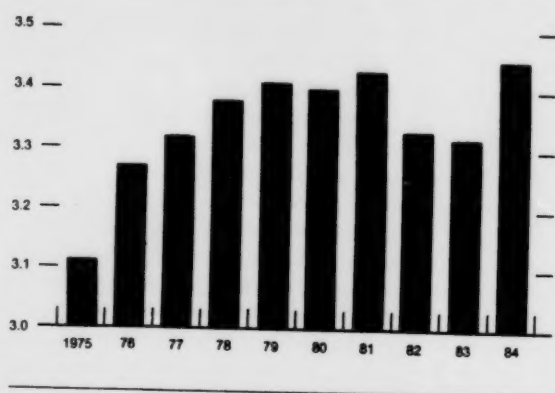


**FIGURE 9. EXCHANGE RATE (U.S. Value of Canadian Dollar)**

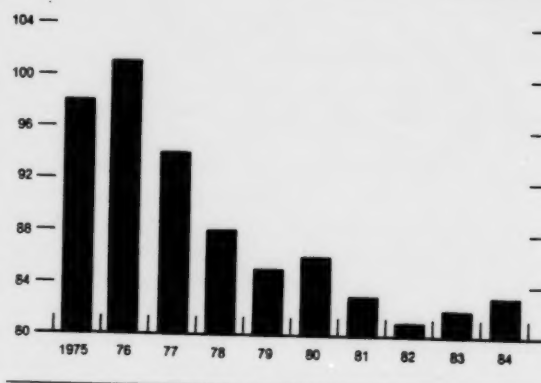
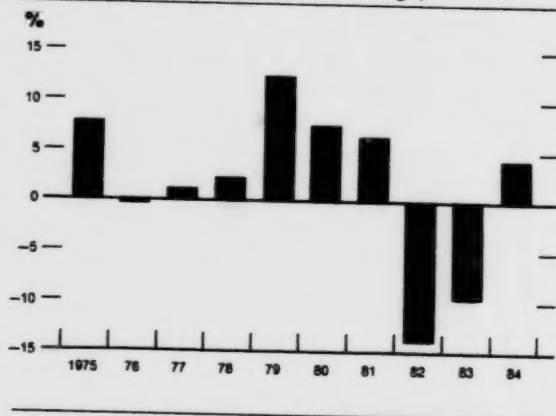


**FIGURE 8. BUSINESS INVESTMENT, PLANT AND EQUIPMENT (Percent Change)**





# The world agricultural outlook for 1983

Patrick M. O'Brien\*

I appreciate the opportunity to meet with you this afternoon to comment on the world agricultural outlook. In preparation for this session, I reviewed several past conference proceedings and found that your Outlook Conferences traditionally take a broad global perspective. In keeping with that tradition, I'll focus my comments today as broadly as possible on the coming year's global agricultural outlook but with an eye toward the next 1 to 3 years as well.

I have to admit here at the start that I find the current situation and outlook particularly interesting from a demand point of view. Hence, while I'll comment on agricultural supply and trade, I'll tend to concentrate on the factors shaping world demand for farm products. I should also note by way of introduction that the outlook is somewhat different for Canada than for the United States. Many of the developments I'll refer to this afternoon have tended to work to the U.S.'s particularly disadvantage.

By the time I'm done, I hope to have convinced you that the outlook is far less certain than 1982-83's large supplies, lagging prices, and deteriorating farm incomes — particularly in the United States — might suggest. For while stocks of most farm products are currently large enough in combination with weak demand to overhang the market, the supply and demand circumstances that brought us here are quite extraordinary and are unlikely to continue for more than four to six more quarters. In fact, a close look at all the factors at play suggests considerable — albeit currently well disguised — strength in the major commodity markets for the medium and longer term.

## World demand for farm products: 1983 and beyond

While there are a number of factors to keep in mind in analyzing world demand for farm products, four are most important — population growth, the macroeconomic situation and outlook, international financial developments, and national farm and food policies and their trade policy extensions. My reading of these factors suggests that the bullish impact of population growth on demand will continue to be overshadowed through to at least the end of 1983 by a highly improbable, distinctly bearish set of macroeconomic factors, international financial developments, and policy developments. Given the improbable combination of events shaping the 1983 situation,

however, the bearish situation we are facing now should be relatively short-lived. In fact, the world market could well be shifting back toward a more normal demand growth pattern similar to the 1960's and 1970's by mid- or late 1984.

The first of these world demand factors I'll highlight this afternoon, population, is the least controversial but of fundamental importance. The world will be adding another 85 million people in 1983 — a 1.9% global gain roughly three times the population of Canada. Simply feeding this increase in numbers at the minimum intake levels recommended by the Food and Agriculture Organization will require the equivalent of 25 million tons of foodstuffs — or all the wheat produced this year here in Canada.

This growth in population will undoubtedly have a bullish impact on demand only partially offset by its concentration in the middle and low income countries. Given the historical relationship between population growth and growth in demand for farm products, this 1.9% increase suggests a 1.4 to 1.5% increase in world demand for farm products (Table 1).

The second of the demand factors I'd like to look at this morning relates to the macroeconomic situation and outlook and their effect not only on demand levels but on the product composition of demand. Needless to say, virtually the entire world is currently experiencing the most severe and prolonged economic depression since the 1930's. We currently face a third, in some countries a fourth or fifth, quarter of economic deterioration. The result has been declining real per capita incomes, rising unemployment, and high real interest rates (Table 2).

These macroeconomic developments have chocked off all but the most resilient income-related growth in demand for farm products in late 1981 and so far in 1982. It is extremely difficult to underestimate the bearish impact this unprecedented slowdown in the world's economy has had on farm sectors in all of the developed and many developing countries.

Macroeconomic forecasters are in general agreement that economic activity during early 1983 will be sluggish at best. But most forecasters also call for a worldwide recovery — albeit a slower-than-normal recovery — beginning in mid- or late 1983. This recovery would be based in large part on a gradual strengthening of the economy in the United States boosting American imports. Less restrictive monetary policies, leading to lower interest rates in the United States and in the other developed countries, are also seen as likely sources of recovery.

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TABLE 1. GROWTH IN WORLD DEMAND FOR FARM PRODUCTS

| Variable                             | 1976-77 to<br>1979-80<br>average | 1979-80<br>actual | 1980-81<br>actual | 1981-82<br>actual | 1982-83<br>actual<br>prelim. | 1983-84<br>actual<br>forecast | 1984-85 to<br>1985-86<br>forecast |
|--------------------------------------|----------------------------------|-------------------|-------------------|-------------------|------------------------------|-------------------------------|-----------------------------------|
| compound annual growth rates         |                                  |                   |                   |                   |                              |                               |                                   |
| Population-related growth            | 1.5                              | 1.5               | 1.5               | 1.4               | 1.4                          | 1.4                           | 1.4                               |
| GNP-related growth                   | 1.3                              | 1.6               | 0.3               | -0.3              | -0.6                         | 0.3                           | 0.9                               |
| International finance related growth | +++                              | +++               | +                 | -                 | -                            | -                             | -                                 |
| Policy-related growth                | +++                              | +++               | +                 | -                 | -                            | -                             | +/-                               |
| Aggregate growth rate                | 3.3                              | 3.6               | 2.0               | 0.7               | 0.3                          | 1.0                           | 2.2                               |

TABLE 2. WORLD MACROECONOMIC DEVELOPMENTS

| Country/variable        | 1976-80<br>average | 1979<br>actual | 1980<br>actual | 1981<br>actual | 1982<br>prelim. | 1983<br>forecast | 1984-85<br>forecast |
|-------------------------|--------------------|----------------|----------------|----------------|-----------------|------------------|---------------------|
| I. Economic growth      |                    |                |                |                |                 |                  |                     |
| - US                    | 3.5                | 2.8            | - 0.4          | 1.9            | -1.6            | 2.0              | 3.0                 |
| - EC                    | 3.1                | 3.4            | 1.1            | - 0.8          | 1.0             | 1.0              | 2.5                 |
| - Japan                 | 5.1                | 5.5            | 4.4            | 3.0            | 2.5             | 2.5              | 3.0                 |
| - Canada                | 3.1                | 3.2            | 0.0            | 3.0            | -4.4            | 0.0              | 3.0                 |
| - Mexico                | 6.7                | 9.2            | 8.3            | 7.0            | 0.0             | 0.0              | 6.0                 |
| - Brazil                | 6.9                | 7.9            | 5.0            | - 3.5          | 0.0             | 3.0              | 5.5                 |
| - South Africa          | 3.2                | 4.1            | 7.8            | 4.7            | 2.0             | 2.0              | 3.5                 |
| - India                 | 3.5                | -4.8           | 6.5            | 4.5            | 4.0             | 4.0              | 4.0                 |
| - South Korea           | 7.8                | 7.1            | - 3.6          | 8.0            | 4.0             | 4.5              | 6.0                 |
| - Thailand              | 7.6                | 6.1            | 5.8            | 7.6            | 6.7             | 6.5              | 6.5                 |
| II. Unemployment rates  |                    |                |                |                |                 |                  |                     |
| - US                    | 6.6                | 5.7            | 7.0            | 7.6            | 9.7             | 10.3             | 8.5                 |
| - EC                    | 5.5                | 5.6            | 6.1            | 7.1            | 8.2             | 8.3              | 8.2                 |
| - Japan                 | 2.1                | 2.1            | 2.0            | 2.2            | 2.1             | 2.4              | 2.1                 |
| - Canada                | 7.7                | 7.4            | 7.5            | 7.6            | 9.2             | 9.3              | 8.0                 |
| III. Inflation rates    |                    |                |                |                |                 |                  |                     |
| - US                    | 8.9                | 11.3           | 13.5           | 10.4           | 6.3             | 5.5              | 5.5                 |
| - EC                    | 8.3                | 8.4            | 9.6            | 10.1           | 9.0             | 8.0              | 7.5                 |
| - Japan                 | 6.6                | 3.6            | 8.0            | 4.9            | 3.0             | 3.0              | 4.0                 |
| - Canada                | 8.8                | 9.1            | 10.2           | 12.4           | 11.0            | 9.0              | 8.0                 |
| - Mexico                | 21.4               | 18.2           | 26.4           | 27.9           | 50.0            | 30.0             | 20.0                |
| - Brazil                | 52.0               | 52.7           | 82.8           | 105.5          | 100.0           | 80.0             | 80.0                |
| - South Africa          | 12.0               | 13.1           | 13.8           | 15.2           | 16.0            | 14.0             | 14.0                |
| - India                 | 4.2                | 6.5            | 11.5           | 13.0           | 7.0             | 6.0              | 6.0                 |
| - South Korea           | 17.4               | 18.3           | 28.7           | 21.3           | 6.0             | 5.0              | 5.0                 |
| - Thailand              | 9.9                | 9.9            | 19.7           | 12.7           | 6.0             | 5.0              | 5.0                 |
| IV. Real interest rates |                    |                |                |                |                 |                  |                     |
| - US                    | 0.3                | -0.1           | - 0.1          | 6.0            | 5.0             | 4.5              | 2.0                 |
| - EC                    | -0.9               | 0.2            | 0.5            | 3.2            | 3.2             | 2.0              | 2.0                 |
| - Japan                 | 0.2                | 2.3            | 2.7            | 2.5            | 4.5             | 4.0              | 2.5                 |
| - Canada                | 1.1                | 2.6            | 2.6            | 5.3            | 3.5             | 2.0              | 2.0                 |
| - South Africa          | -5.6               | -8.2           | - 9.3          | 5.6            | -1.5            | -2.0             | -2.0                |
| - India                 | 4.8                | 2.0            | - 4.3          | - 4.4          | 2.0             | 2.0              | 2.0                 |
| - South Korea           | -2.6               | -3.3           | -12.7          | -10.3          | -1.0            | -2.0             | -2.0                |
| - Thailand              | 1.4                | 2.6            | - 6.2          | 2.2            | 8.0             | 2.0              | 2.0                 |

This U.S. export stimulus, complemented by lower interest rates, is expected to push GNP growth rates in the foreign industrialized countries up to 2.5% growth rates of the late 1970's. Distracting somewhat from this recovery, however, are expectations that growth in investment and consumption will remain relatively weak and that unemployment will remain a problem throughout the recovery cycle. Few, if any, of the macroeconomic forecasters expect that the classical recovery cycle marked by four to six quarters of boom will be forthcoming (Table 2).

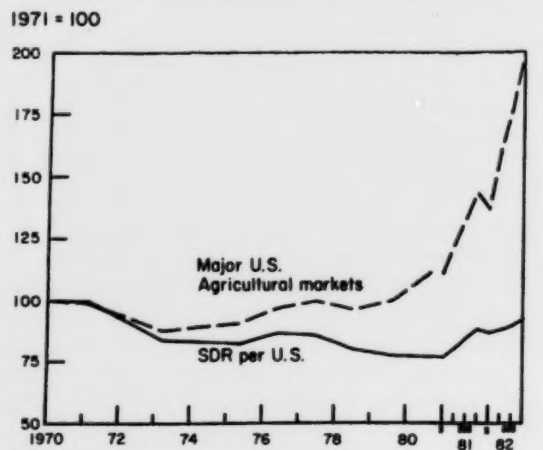
Given the transmission of recovery from the OECD countries via trade and international finance to the developing countries, world growth could pick up to over 3% in 1983 from less than 1% in 1982, and rise steadily to 3.5 to 4% per year by mid-decade. Should this economic recovery materialize, world growth in demand for farm products should recover slowly over the next 12 months from the 20 year low experienced from late 1981 through late 1982.

Per capita incomes and consumer buying power in the developed and affluent developing countries would tend to stagnate — but at least decline no further — during the first half of 1983. But the second half of 1983 should see the first significant increases in consumer buying power in these countries in more than six quarters. The real per capita income levels associated with these macroeconomic forecasts suggest 0.5% or less in growth in demand for farm products for 1983 as a whole. This fractional gain in world demand compares with an affluence-related decline of more than 0.5% in demand in 1982 and affluence-generated growth in demand averaging 1.5% per year in the 1970's (Table 1).

The third set of demand factors we need to look at are international financial developments — particularly as they affect the importing countries' ability to purchase farm products abroad in order to augment local production. The appreciating U.S. dollar, the changing international credit and debt environment, and the bankruptcy of several large food importers (Poland and Mexico) all worked during 1982 and will continue in 1983 to weaken the international financial system. As the circumstances of the last 12 to 18 months suggest, world agricultural trade is particularly vulnerable to any such system disruption. I'll look at each of these financial developments and their bullish effects on farm trade and demand in turn.

The appreciation of the U.S. dollar has had three distinct impacts on world growth in demand for farm products — all bearish in effect. First, the changing value of the dollar has tended to destabilize international exchange markets and to increase the risk involved in international transactions. Second, the rising value of the dollar has tended to raise the import price of the 40% of the world's farm trade originating in the United States. While U.S. commodity prices in U.S. dollars are generally 5 to 10% lower than a year ago, the value of the dollar has gone up sharply — particularly in the heretofore fast growing middle income food importing countries. As a result, the local currency prices of imported U.S. farm products in many countries are up 50 to 100% from a year ago (Table 3). On average, importers of U.S. wheat, corn, soybeans, and cotton are paying 72% more this year than a year ago (Figure 1).

FIGURE 1. THE VALUE OF THE DOLLAR RELATIVE TO THE SDR AND THE CURRENCIES OF THE U.S.'S MAJOR AGRICULTURAL MARKETS



There is a third, less commonly understood impact of the appreciation of the dollar. Virtually all the debt service paid, virtually all the petroleum imported, and virtually all the capital goods purchased abroad by the middle income countries are paid for in dollars. Hence, the 50 to 500% appreciation of the dollar faced by many of these countries over the last year has raised prices for a whole range of products and effectively reduced these countries' overall purchasing power sharply. Given the generally low priority afforded food imports in these countries relative to debt service, petroleum, and capital goods, food imports have suffered an added setback.

Quantifying the impact of the strengthening of the dollar is difficult at best. But even a conservative 0.1 to 0.2 price elasticity of import demand, weighted to reflect the proportion of trade accounted for by the United States, would suggest a 4 to 6% falloff in world imports. The instability and secondary budget impacts of the appreciation of the dollar undoubtedly raise this impact — possibly doubling it. The end result, given the importance of imports as a source of growth in demand, is quite likely a 1 to 2% trade-related decline in overall food demand in 1982 and 1983.

Further reinforcing this appreciation-related decline in world farm trade is the impact of a general tightening in export credit and bankruptcy in countries such as Poland and Mexico. While difficult to quantify, these developments are definitely bearish and tend to make my estimate of the trade-related decline in demand conservative. Of all the demand factors I've looked at this afternoon, this question of credit — stated broadly enough to include debt burdens, credit terms, and credit availability — is likely to have the most lasting impact on demand. Recovery in this area could clearly take several years.

TABLE 3. INDEX OF TRADE WEIGHTED DOLLAR EXCHANGE RATE FOR MAJOR COMMODITIES (APRIL 1971 = 1001)

| Period    | Total<br>agricultural<br>exports | Soybeans | Wheat  | Cotton | Corn   |
|-----------|----------------------------------|----------|--------|--------|--------|
| 1973      | 87.80                            | 82.36    | 94.58  | 97.82  | 85.56  |
| 1974      | 89.51                            | 83.55    | 97.96  | 100.22 | 87.81  |
| 1975      | 90.87                            | 82.58    | 103.05 | 108.41 | 89.11  |
| 1976      | 97.10                            | 88.41    | 112.30 | 111.43 | 97.56  |
| 1977      | 99.82                            | 88.52    | 120.56 | 110.31 | 100.67 |
| 1978      | 96.32                            | 80.92    | 127.49 | 105.98 | 95.81  |
| 1979:     |                                  |          |        |        |        |
| I         | 97.80                            | 77.55    | 138.47 | 109.25 | 96.05  |
| II        | 99.89                            | 78.98    | 145.30 | 110.56 | 98.59  |
| III       | 99.74                            | 77.53    | 150.59 | 110.14 | 98.01  |
| IV        | 103.20                           | 78.90    | 165.18 | 111.80 | 101.60 |
| Average   | 100.16                           | 78.16    | 149.89 | 110.52 | 98.57  |
| 1980:     |                                  |          |        |        |        |
| I         | 107.44                           | 79.20    | 186.41 | 118.32 | 105.80 |
| II        | 109.66                           | 79.71    | 197.02 | 119.67 | 107.87 |
| III       | 109.81                           | 78.26    | 204.71 | 118.68 | 107.81 |
| IV        | 116.15                           | 81.12    | 225.80 | 122.77 | 112.83 |
| Average   | 110.77                           | 79.57    | 203.49 | 119.86 | 108.58 |
| 1981:     |                                  |          |        |        |        |
| January   | 119.0                            | 83.1     | 235.8  | 125.0  | 117.2  |
| February  | 123.1                            | 86.7     | 244.4  | 126.0  | 122.3  |
| March     | 124.7                            | 87.1     | 252.6  | 127.2  | 123.9  |
| April     | 128.0                            | 89.4     | 262.6  | 128.1  | 127.7  |
| May       | 133.5                            | 93.0     | 273.1  | 130.8  | 136.6  |
| June      | 140.0                            | 95.8     | 291.9  | 133.3  | 139.2  |
| July      | 144.8                            | 98.1     | 309.9  | 134.6  | 144.3  |
| August    | 147.9                            | 100.1    | 320.1  | 135.8  | 147.9  |
| September | 146.7                            | 96.4     | 327.0  | 134.9  | 145.8  |
| October   | 148.9                            | 95.6     | 342.5  | 135.3  | 147.6  |
| November  | 149.9                            | 94.5     | 353.1  | 135.0  | 148.3  |
| December  | 152.3                            | 95.0     | 365.7  | 134.9  | 150.8  |
| 1982:     |                                  |          |        |        |        |
| January   | 156.2                            | 96.6     | 381.0  | 135.8  | 154.8  |
| February  | 162.5                            | 100.5    | 395.6  | 139.1  | 161.8  |
| March     | 170.2                            | 105.5    | 413.0  | 140.4  | 170.9  |
| April     | 174.2                            | 107.2    | 428.4  | 141.9  | 175.2  |
| May       | 175.3                            | 104.9    | 443.3  | 141.4  | 175.4  |
| June      | 183.1                            | 109.9    | 465.1  | 145.2  | 184.3  |
| July      | 186.1                            | 109.4    | 494.2  | 144.1  | 180.9  |
| August    | 200.9                            | 120.2    | 511.8  | 147.4  | 205.5  |
| September | 210.8                            | 125.6    | 539.5  | 148.2  | 216.9  |
| October   | 209.5                            | 120.3    | 566.8  | 149.5  | 213.2  |

The final set of demand factors I'll highlight this afternoon relate to national agricultural and trade policy developments. Changes in these policies implemented in a number of countries over the last year have had a distinctly bearish impact on growth in demand for farm products. Several of the countries with the fastest growing demand for farm products have begun to reverse longstanding food consumption subsidy programs. Changes in Eastern European food policy, for example, have slowed, in some cases reversed, growth in demand — particularly demand for imported farm products. While the strength of pent-up consumer demand in these countries will ultimately force a return to more supportive consumption policies, the negative impact of these policy changes on growth in demand in 1983 will be considerable.

Table 1 combines all of these demand factors into an aggregate measure of world growth. As you'll note, the 1981 and 1982 rates stand out in sharp contrast to prior rates and — hopefully — the rates likely by mid-decade. Given the extraordinary circumstances we've faced recently, growth in demand has actually been somewhat stronger than might have been expected.

To help put these demand factors into longer term perspective, I've prepared several charts showing probability distributions for the key macroeconomic variables. As you can see from the distributions shown in Figures 2 through 6, the 1981 through 1983 observations are all markedly abnormal — generally one or more standard deviations from the mean and all in a bearish direction with respect to farm demand.

FIGURE 2. GROSS NATIONAL PRODUCT IN THE INDUSTRIALIZED COUNTRIES

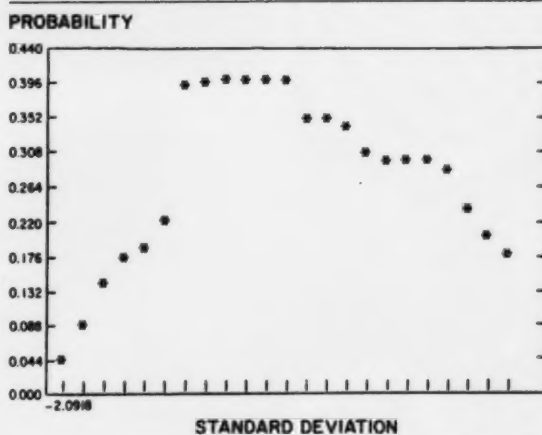


FIGURE 3. REAL INTEREST RATES IN INDUSTRIALIZED COUNTRIES

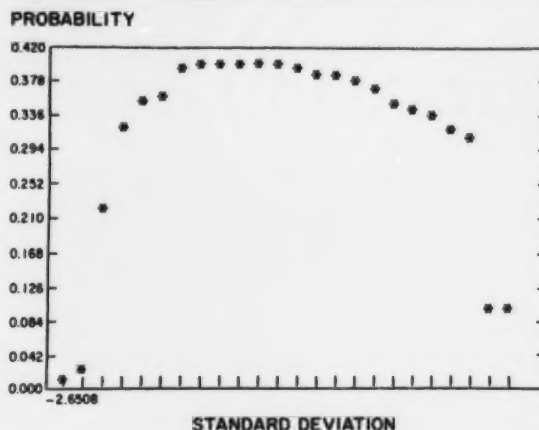


FIGURE 4. GROSS NATIONAL PRODUCT IN MIDDLE INCOME COUNTRIES

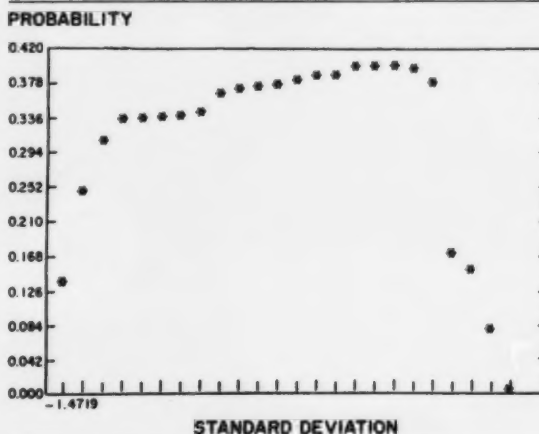


FIGURE 5. GROSS NATIONAL PRODUCT IN LOW INCOME COUNTRIES

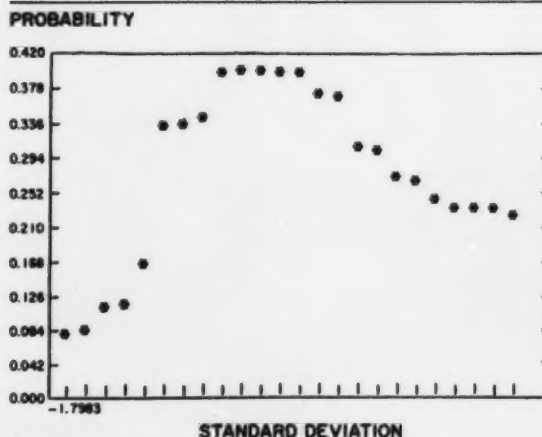
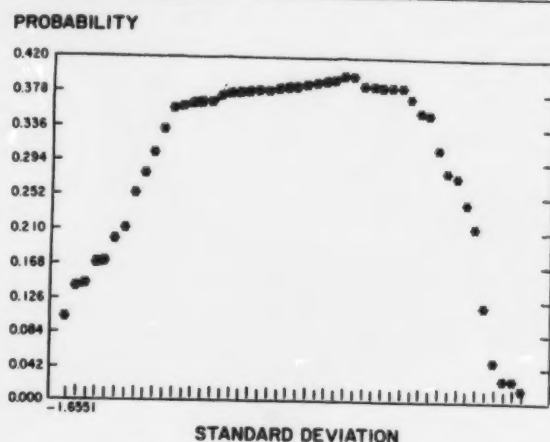


FIGURE 6. PERCENTAGE RATE OF CHANGE, TOTAL AGRICULTURE EXCHANGE RATE



## World supply of farm products: 1983 and beyond

While supply developments in the farm sector in 1981 and 1982 have been far closer to the trend of the last two decades than demand developments, they too have tended to be bearish. A look at two factors — stocks and yields — will help to put the current supply situation into perspective.

Given the demand slowdown already noted and the generally good crops harvested in 1981–82, sizeable stocks were carried over at the end of this past season for use in 1982–83. While not records relative to usage or even in an absolute sense, these stocks have had an unusually bearish impact on the market (Table 4). This has been due in large part to their concentration in the exporters — particularly the United States — where they are readily available and little or no increase in price is needed to draw them onto the market.

TABLE 4. WORLD CARRYOVER STOCKS OF SELECTED FARM PRODUCTS

| Country/commodity        | 1976-77 to<br>1980-81 | 1979-80 | 1980-81 | 1981-82 | 1982-83 |
|--------------------------|-----------------------|---------|---------|---------|---------|
| <b>A. Food grains</b>    |                       |         |         |         |         |
| World                    |                       |         |         |         |         |
| Million tons             | 110.0                 | 103.5   | 96.3    | 103.4   | 107.9   |
| As % of use              | 16.4%                 | 14.7%   | 13.5%   | 14.5%   | 14.9%   |
| U.S.                     |                       |         |         |         |         |
| Million tons             | 28.7                  | 25.3    | 27.4    | 33.2    | 41.3    |
| As % of use <sup>1</sup> | 48.2%                 | 40.0%   | 40.7%   | 43.5%   | 56.2%   |
| <b>B. Feed grains</b>    |                       |         |         |         |         |
| World                    |                       |         |         |         |         |
| Million tons             | 85.1                  | 91.5    | 80.1    | 114.3   | 143.4   |
| As % of use              | 11.8%                 | 12.4%   | 10.8%   | 15.6%   | 19.1%   |
| U.S.                     |                       |         |         |         |         |
| Million tons             | 41.1                  | 52.7    | 34.7    | 73.1    | 105.4   |
| As % of use <sup>1</sup> | 19.7%                 | 22.6%   | 16.0%   | 34.7%   | 47.7%   |
| <b>C. Cotton</b>         |                       |         |         |         |         |
| World                    |                       |         |         |         |         |
| Million bales            | 22.5                  | 22.3    | 22.8    | 28.1    | 28.6    |
| As % of use              | 35.8%                 | 34.2%   | 34.7%   | 42.9%   | 43.0%   |
| U.S.                     |                       |         |         |         |         |
| Million tons             | 3.6                   | 3.0     | 2.7     | 6.6     | 7.5     |
| As % of use <sup>1</sup> | 28.2%                 | 19.1%   | 22.9%   | 55.5%   | 67.0%   |
| <b>D. Soybeans</b>       |                       |         |         |         |         |
| World                    |                       |         |         |         |         |
| Million tons             | 13.0                  | 18.3    | 15.5    | 14.6    | 20.4    |
| As % of use              | 16.9%                 | 21.1%   | 18.4%   | 16.8%   | 22.3%   |
| U.S.                     |                       |         |         |         |         |
| Million tons             | 6.1                   | 9.8     | 8.7     | 7.3     | 12.2    |
| As % of use <sup>1</sup> | 12.5%                 | 17.3%   | 17.3%   | 13.0%   | 20.1%   |

<sup>1</sup> U.S. stocks as a percent of total use including both domestic use and exports



Also maximizing the price dampening impact of these stocks is the macroeconomic situation noted above — particularly high real interest rates. Table 2 and Figure 3 put this interest rate phenomenon into perspective. The high real interest rates of the last four to six quarters have led many stockholders to minimize their holdings — to learn to operate closer to the margin in order to minimize cost. The result in at least the short term is a bearish adjustment in the market's perception of stock needs and conventional stock: price relationships. Equally important is the telescoping of stockholding back down the line to farmers that has resulted from this change in market behavior. Statistical analysis suggests the same bushel of stock has a far more bearish impact on price if it is held at the farm level — especially at the farm level in the United States — compared to the intermediate or final processor stages.

Also contributing to the bearish outlook on the supply side are the unusually good crops harvested this past fall. With some notable exceptions and despite efforts to reduce production in the United States, world output of many farm products is above trend. The production increases of the last 2 years have added 5% or more to the supply of most farm products available around the world in a period when demand increases lagged at less than half this level.

Hence, we are currently experiencing a bearish — although far closer to normal — supply situation. Figures 7 and 8 put these supply and demand developments into perspective. As Figure 8 shows, world use of grain for feed is currently 30 million tons below trend while world grain production is 5 to 10 million tons above trend.

### World trade prospects: 1983 and beyond

The implications of the current situation and outlook for trade in the coming year are clear. Growth in trade over the coming year is likely to be disappointing from a historical perspective but somewhat faster than short term developments might suggest. Trade volume in 1982 has decline fractionally for the second time in 15 years; prospects for 1983 at this early point in time are uncertain but not appreciably better.

Any significant strengthening in trade this coming year will have to depend on an unexpected increase in imports to meet production shortfalls rather than on any forecastable surge in demand. This outlook contrasts sharply with the outlook in the mid-1970's when trade expanded due both to strong and steady growth in demand as well as unexpected production shortfalls.

FIGURE 7. WORLD TOTAL GRAIN PRODUCTION

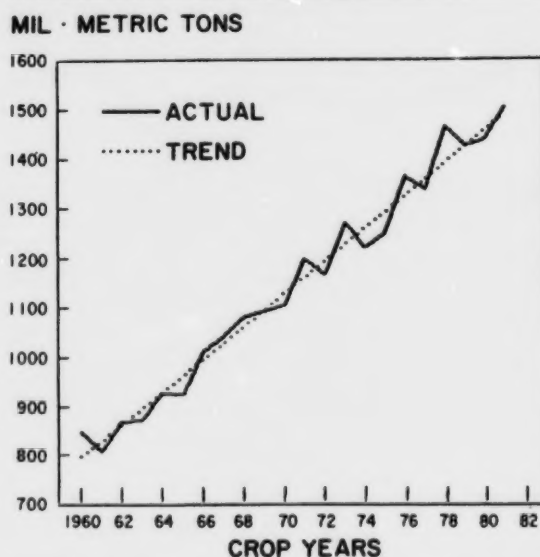
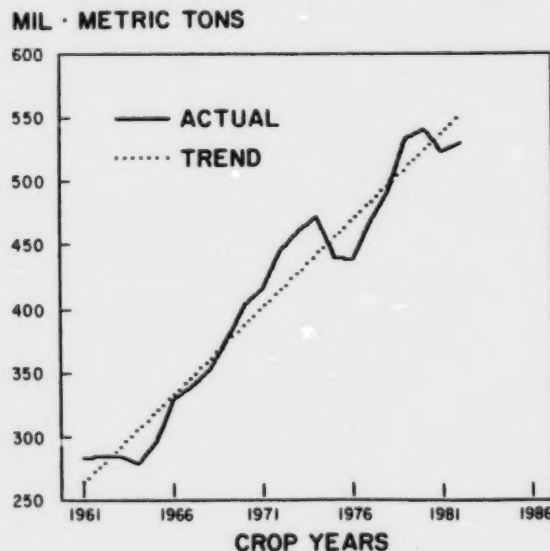


FIGURE 8. WORLD USE OF GRAIN FOR FEED



## Implications for Canada

What does all this mean for Canada? Given the importance of trade to Canada, 1983 is not likely to be a sterling year for Canada farmers. But Canada's unique position in world agricultural trade does put Canada in a good position to minimize the damage done to its agricultural interests in the short term. The Wheat Board's capacity to market aggressively, for instance, and the competitive edge the lower priced Canadian dollar gives Canadian exporters can both be used well to your country's advantage this coming year.

Table 5 suggests that the differences in currency movements alone makes the Canadian trade and farm income outlook considerably brighter than the U.S. outlook. For while U.S. farm prices for wheat are 13% below early 1980's levels, Canadian prices are less than 1% lower. This is an important point camouflaged somewhat by the drop in domestic prices you've experienced from a year ago due to a somewhat different set of marketing pressures. Equally important, the exchange rate twist of fate makes the reverse true on the world market; Canadian wheat is generally lower priced than U.S. wheat in the major markets of the world if priced in local currencies. It is with these factors in mind that Canada can look forward to the strong grain and oilseed export performance suggested in Table 6.

Canada's interests in agricultural trade go beyond the farm products you export. Your imports of coffee and sugar in particular are significant. Most of the demand factors I've noted above are also at play in these markets and work to Canada's advantage. Hence, Canada's positive agricultural trade balance this coming year might well be record or near-record large.

TABLE 5. U.S. AND CANADIAN FARM PRICES FOR GRAIN

| Year            | U.S.        |       | Canadian <sup>1</sup> |        |
|-----------------|-------------|-------|-----------------------|--------|
|                 | wheat       | wheat | barley                | barley |
|                 | \$ / bushel |       |                       |        |
| 1977 to 1980-81 | 3.14        | 4.50  | 2.22                  | 2.35   |
| 1979-80         | 3.78        | 4.82  | 2.29                  | 2.30   |
| 1980-81         | 3.91        | 5.86  | 2.85                  | 2.60   |
| 1981-82         | 3.65        | 6.71  | 2.50                  | 3.14   |
| 1982-83         | 3.45        | 5.83  | 2.15                  | 2.70   |

<sup>1</sup> No 1 CWRS 13.5 Thunder Bay

<sup>2</sup> No 1 Feed WCE cash, Thunder Bay

TABLE 6. CANADIAN EXPORTS OF SELECTED FARM PRODUCTS

| Year               | Wheat Barley Oilseeds Pork |       |       |     |
|--------------------|----------------------------|-------|-------|-----|
|                    | 1000 m tons                |       |       |     |
| 1976-77 to 1979-80 | 14 930                     | 3 514 | 1 374 | 68  |
| 1979-80            | 15 883                     | 3 832 | 1 743 | 80  |
| 1980-81            | 16 262                     | 3 236 | 1 373 | 117 |
| 1981-82            | 18 443                     | 5 722 | 1 359 | 128 |
| 1982-83            | 19 500                     | 5 500 | 1 100 | 150 |
| 1983-84            | 18 800                     | 5 500 | 1 600 | 125 |
| 1984-85            | 19 000                     | 5 500 | 1 700 | 125 |

## Conclusion

In close, then, let me note the serious problems we face in world agriculture over the coming year. But let me also note what appears to me to be on closer inspection to be the underlying strength of the world's major commodity markets and the danger of using the 1982-83 situation to define a new norm applicable for more than a year or two at most.

# Agricultural markets: a short-term overview

Brian Paddock

In this paper I will describe the situation and outlook for agricultural commodities for the balance of 1982 and for 1983. In doing so I will be describing the market prospects for farm products in general as well as providing a capsule summary of the prospects for individual commodities. More detailed analysis for individual commodities will be presented in the concurrent sessions tomorrow. While the supply picture must be examined in the context of individual commodities or commodity groups, it is useful to look in broader terms at the prospects of consumer demand for farm products in Canada and also in international markets which are so very important for many of our commodities.

## Domestic demand

Since 1981, the Canadian economy has been forced to absorb the impact of two massive price shocks. Since 1979 interest rates and energy prices have risen by about 80%. Prices of these items are important since housing and energy are major components in the typical consumer's budget. In the short term, expenditures on these items are relatively fixed. Moreover, investments to reduce these expenditures (fuel conversion, insulation, etc.) themselves place additional strain on the consumer's budget. The adjustment is forced into the remainder of the consumer's budget where consumers have more short term discretion. The result has been a relatively weak domestic demand for agricultural products in 1982, particularly those such as meats which are most sensitive to income. I might add that one needs only look at sales data for consumer durables such as automobiles and housing to see that agriculture has fared better than some sectors.

Prospects for 1983 are for modest improvement. Energy price increases in 1983 are forecast to be more modest and interest rates are expected to remain below 1982 levels. Consumer response to lower interest rates is likely to be gradual. Many will recall the interest rate experience in 1980, when interest rates declined from about 16% in April to 10% in July before beginning a long incline which peaked at an excess of 20% in August of 1981. They will therefore be cautious about making financial decisions based on lower interest rates. Moreover, consumers locked into financial commitments at higher interest rates will only respond as these commitments expire. However, if, as is expected, lower interest rates persist and the economy begins to show growth toward the second half of 1983, consumer demand for agricultural products should gradually improve.

## International demand

On the international scene, two factors continue to dominate the demand for farm products. An important byproduct of the high North American interest rates has been the appreciation of North American currencies. This has had the impact of increasing the prices faced by importers of North American products.

Offsetting the increase in the Canadian dollar, when measured against many offshore currencies, has been its decline relative to the U.S. dollar. This has the impact of increasing the competitiveness of Canadian products relative to U.S. farm products in any market where they compete.

The other major factor on the international scene is the prospect for economic growth. As the case for Canada, it is generally agreed that the performance of most economies in 1983 will be better than in 1982 although the improvement may not become evident until the second half of 1983. This will mean modestly improved demand conditions for farm products, particularly those which are most income-sensitive such as meats, feed grains and oilseeds. Thus the prospect is for some improvement in the latter part of the year.

## Commodity overview

Having reviewed the overall demand prospects I would like to provide you with a brief summary of the situation and outlook for specific commodity groups. I would like to mention again that I will be presenting only a capsule summary for individual commodity groups. Those interested in further detail are invited to attend the concurrent sessions on individual commodities which will be held tomorrow.

### Grains and oilseeds

World supplies of wheat and coarse grains are expected to increase by 58 million tonnes (4%) to 1438 million tonnes. Wheat supplies increased by 12 million tonnes as sharply lower production in Australia was offset by higher stocks and production elsewhere, particularly in the U.S. Wheat utilization is expected to remain at about 1981-82 levels leaving ending stocks higher by about 12 million tonnes with the bulk of the increase occurring in the U.S. Canadian wheat supplies for 1982-83 have increased by almost 3 million tonnes. Higher exports and domestic use are expected to absorb only part of the increase in Canadian supplies and ending stocks will increase by about 2 million tonnes. Prices this year for Canadian wheat are expected to average about 5% below 1981-82 levels.

World coarse grain supplies increased by 46 million tonnes in 1981-82, again largely as a result of increased production and supplies in the U.S. Despite a modest increase in coarse grains utilization, world stocks are expected to increase by 28 million tonnes. Once again the U.S. accounts for most of the increase in coarse grain stocks. Canada's coarse grain supplies in 1982-83 increased slightly to 31.9 million tonnes. Exports of coarse grains are expected to fall slightly in 1981-82, causing an increase in Canadian stocks of coarse grains to 6.2 million tonnes by the end of 1982-83. Coarse grain prices, particularly oats and barley, are expected to be 15-20% below 1981-82 levels and corn prices are expected to be down by about 10%.

World production of oilseeds also increased in 1982. Increased soybean production in the United States was a major factor in the increase. Of particular interest to Canada, production of canola in Western Europe increased by about 25%. Demand for oilseeds has been hampered by slow economic growth and, in export markets, the appreciation of North American exchange rates.

Production in all major Canadian oilseeds increased in 1982. Canola supplies in Canada declined again in 1982-83 despite increased production. Despite lower exports and domestic crushing, ending stocks are expected to be cut to less than 500 thousand tonnes by the end of the year. Canola prices are expected to be slightly lower in 1982-83, reflecting higher world supplies. Canadian flaxseed supplies increased to almost 1 million tonnes in 1982 as a result of larger production. Reduced exports are expected to lead to higher stocks and about a 10% reduction in flaxseed prices. Sharply higher soybean production is expected to lead to reduced imports in 1982-83. Prices are expected to decline by about 10-12% from 1981-82 levels.

A major factor which will influence prices later in 1982-83 and in 1983-84 will be the rate of participation in U.S. farm programs in 1983-84. A higher rate of participation in these programs which required substantial reduction in wheat and feed grain acreage, could have a significant impact on U.S. exportable supplies for 1983-84.

### **Meat and eggs**

Canadian production of meat in 1983 is expected to be the same or slightly above 1982 levels with a decline in beef production of about 2% being offset by an increase in pork production of about 3% and a slight increase for poultry meat. The reduction in beef production is indicated by reduced beef animal numbers indicated in all categories by the statistics Canada July 1 survey. In particular, beef cows and heifers are

down by 3% in response to earlier relatively low feeder cattle prices. Pork production, by contrast, is expected to increase in 1983 as increased pork prices and lower feed costs are expected to result in increased marketings in the last half of the year. Production of poultry meats may show a small increase as relatively high prices for red meats stimulate consumer demand and thereby allow modest increases in quotas. Egg production is expected to remain stable.

Prices of A1A2 steers in Toronto are expected to average in the \$81-\$87/cwt, compared to the 1982 average of \$80.50/cwt. Feeder cattle prices are expected to increase above year-earlier levels as lower feed prices and interest rates stimulate demand for calves. Pork prices in 1983 are expected to average at or slightly below the 1982 average of \$84.25. Prices are expected to be firm through the first three quarters before weakening somewhat in the fourth quarter as increased pork supplies become available. Prices of poultry and eggs in the first half of 1983 can be expected to increase modestly in 1982, and as is usually the case, grain prices to show a seasonal increase.

### **Dairy**

The target return of industrial milk was raised to \$41.02/hL. In August 1982, at the same time, support prices for butter and skim milk powder were raised to \$4.33 and \$2.59/kg, respectively. The 6 and 5% constraints will apply to support prices for dairy products until March of 1984.

Farm sales of milk and cream are expected to total about 7.44 hL in 1982-83, slightly lower than in 1981-82 as a result of expected declines in production of industrial milk and fluid cream. Fresh milk sales are expected to be up by 0.7%.

Consumption of both butter and cheese are expected to decline in 1982-83 because of increased prices and slow income growth. Despite lower expected butter production, butter stocks are expected to be substantially higher at the end of 1982-83. Production of cheddar cheese is expected to increase about 6% in 1982-83. Exports of cheese are expected to fall slightly leading to ending stocks which, although higher by 3%, will be well below the level at the end of 1980-81.

Retail prices for dairy products in 1982-83 are expected to be 8 to 9% above the previous year compared to an 11.7% increase in 1981-82. The lower rate of increase is in part due to lower feed costs and in part to the government's 6 and 5 program.



## Horticulture

Total Canadian fruit production in 1982 was 10% above the 1981 level. Apple production, while above the 1981 level, was below earlier production levels. However, competitive apple supplies will be above earlier levels. Raspberries and blueberries and tender tree fruit crops were also significantly above average. Prices of many fresh fruits in 1982 were below 1981 levels. In particular, apple prices are expected to be about 10% below recent levels due to higher supplies in Canada and in other exporting countries. Prices of frozen fruit are also expected to decline somewhat as larger harvests augment current low stocks.

Canadian vegetable production in 1982 was also well above earlier levels. Potato production while slightly lower than 1981 levels was above the previous 5-year average. Increased processing costs are expected to lead to a small increase in prices of processed vegetables. Potato prices are currently below year-earlier levels, reflecting higher U.S. supplies.

The National Farm Product Marketing Council conducted a producer vote to determine if an Eastern Canadian Potato Marketing Agency should be created. A formal agency is expected to be formed in 1983.

Canadian sugar beet production is expected to be below last year's crop. However, world supplies of sugar are high and are expected to keep world sugar prices in 1982-83 at low levels.

In general, demand for most agricultural products is expected to be quite soft in 1983 with prospects for some modest improvement later in 1983 as general economic conditions improve. One cannot go through the prospects for various commodities without coming to the conclusion that 1983 is not expected to be a vintage year for Canadian agriculture. While Ernie Boyko will discuss in some detail the forecasts for cash receipts, expenses and farm income, it is clear from the summaries we have just reviewed that 1983 will be a difficult year for Canadian farmers. Fortunately, while the outlook for 1983 is not good, the medium-term outlook for farm products which will be discussed by Bruce Huff is somewhat brighter.



# Mid-term outlook for Canadian agriculture<sup>1</sup>

H. Bruce Huff\*

The mid-term outlook (1983-87) for Canadian agriculture provides some grounds for cautious optimism. It is expected that there will be slow but steady improvements in the agricultural price/cost relationship and net farm income over current levels (1982). However, these improvements are unlikely to be at the rate experienced in recent years, until perhaps 1985. These generalizations mask the sizeable differences expected among commodity groups. For grains and oilseeds, the U.S. Farm Program and the large level of farmer-held reserve stocks may add stability but limit increases in grain and oilseed prices for at least the next 2-3 years. For livestock, inherent cyclical factors will create considerable variability in supply. Since pork supplies are expected to increase in 1984-85, prices may be lower in those years. Beef production should decrease until a turnaround occurs in about 1986 with annual price increases being relatively high. Good growth prospects in the domestic market should prevail for dairy and poultry products as price increases will be small and demand should expand more rapidly than for the past few years. The major horticultural commodities are likely to be confronted with continuing large North American and world supplies and thus price increases will be small.

A major uncertainty in this forecast is the international market which has fuelled an "engine of growth", providing an outlet for expanded output for Canadian agriculture since the mid-1970's. There are ominous storm clouds of increasing protectionism and export subsidization. The extent to which these policies are instituted greatly affects the forecast for Canadian agriculture.

## Historical perspective

Canadian agriculture experienced a high rate of growth in prices and net income during the 1976-1980 period. Farm prices, on average, increased 9.9% annually, farm cash receipts increased 12.4% annually and net farm income by 6.2% (see Table 1). This compares with an 8.7% increase in the Consumer Price Index.

The key stimulus to this good rate of growth was the export market. Value of agricultural exports rose 16.4% annually while value of imports increased 12.6% during 1976-80. Part of the export demand and price increase can be traced to the 20% devaluation of the Canadian dollar (against the U.S. dollar) during 1977 and 1978. Also important were the series of

TABLE 1. TRENDS IN ECONOMIC INDICATORS FOR THE AGRICULTURAL SECTOR

| Economic variable            | Growth rate (%) |         |         |         |
|------------------------------|-----------------|---------|---------|---------|
|                              | 1961-70         | 1971-80 | 1961-80 | 1976-80 |
| Farm cash receipts           | 4.68            | 12.67   | 8.86    | 12.38   |
| Net farm income              | 1.42            | 7.91    | 6.64    | 6.19    |
| Agricultural exports         | 2.00            | 13.42   | 9.32    | 16.43   |
| Agricultural imports         | 4.41            | 14.55   | 10.00   | 12.60   |
| Agricultural net trade       | N/A             | 9.74    | 7.80    | 27.34   |
| Nominal food expenditures    | 5.79            | 12.68   | 9.69    | 10.86   |
| Deflated food expenditures   | 2.80            | 2.16    | 3.26    | - 0.58  |
| Food prices                  | 3.04            | 10.57   | 6.39    | 11.67   |
| Real food prices             | 0.05            | 2.11    | 0.95    | 3.01    |
| Farm input price index       | 3.03            | 10.34   | 6.50    | 10.65   |
| Farm expenditures            | 5.94            | 14.46   | 9.57    | 14.46   |
| Real farm expenditures       | 2.90            | 4.12    | 3.07    | 3.81    |
| Index of agricultural output | 2.69            | 2.52    | 2.20    | 0.44    |
| Index of agricultural prices | 1.90            | 9.60    | 6.58    | 9.85    |

Estimated from semi-log regression  $\text{LOG } Y = A + B (\text{TIME})$

<sup>1</sup> Forecasts in this paper are based on information from several U.S. and international agencies for agricultural prices and the Conference Board of Canada for general economic outlook. The author was assisted in the preparation of information in this paper by Marika Nemeth, Vicky Cano Lamy, Pierre Cloutier and Maryse Côté

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unexpected shortfalls in Russian grain harvests and the continued increase in grain imports by China, Japan and many less developed countries. The Tokyo round of the GATT provided improved access for Canada in the important U.S., EEC and Japanese markets. Improvements in the grain transportation system, through additional hopper cars, port capacity and the Grain Transportation Authority, eased bottlenecks often seen in earlier years.

Expenditures for food (expressed in real terms) in the domestic market declined by 0.6%, during 1976-80, as a result of rising food prices and committed expenditures for energy and debt charges. Several significant adjustments also occurred in the product mix of the consumer food basket and the source of those products. The rapid declines in per capita consumption of eggs and butter appeared to have levelled off. Dairy processors supplied an increasing share of the growing specialty cheese market. The introduction of national supply management programs for chicken and turkey limited growth in imports of these commodities while Canada's production of fruit now only satisfies about one-quarter of consumption, down from over 40% in the early 1960's. Per capita meat and poultry consumption increased 2% during 1976-81, with beef falling 17% while pork and poultry rose 31 and 12%, respectively.

The favorable price/cost of the 1976-80 period was altered during the past 2 years as a result of a number of events. There were large increases in feed costs, interest rates, and energy prices, and major reasons causing the 13.5% increase in the farm input price

index in 1981 (compared with 10.7 during 1976-80).

During 1981, livestock producers were most affected. Weak commodity prices, for beef in particular and to a lesser extent pork, arose from slow growth in consumer incomes and liquidation of beef breeding herds. This created severe financial hardship for livestock feeders, many of whom had expanded during the 1970's and were highly leveraged with short term credit from private institutions.

In 1982, income declined for grain and oilseed producers. Prices dropped because of large world crops, especially in North America, stimulated by the price increases of the past 5 years. The higher production combined with weak demand for grains from slow economic growth, importers' restraints and revaluation of North American currencies, has resulted in high carryover stocks.

Instability in Canadian agriculture, especially for prices and costs, was at the high levels throughout the 1970's (see Table 2). Year-to-year variation, about a growth trend, was 11.1% for farm prices and 4.4% for farm production. Farm cash receipts varied 7.8% and net farm income 20.9%. Variability for individual commodities was substantially larger.

Traditionally, agricultural instability arose from widely fluctuating supplies from unplanned events such as weather and disease. These fluctuations, combined with a consumer demand which was highly insensitive (inelastic) to price, resulted in wide variations in prices. As well, cyclical variations occurred because of long biological lags in production response to economic stimuli.

TABLE 2. ANNUAL VARIABILITY FROM TREND FOR ECONOMIC INDICATORS<sup>1</sup> IN THE AGRICULTURAL SECTOR

| Economic variable              | 1961-70 | 1971-80 | 1961-80 | 1976-80 |
|--------------------------------|---------|---------|---------|---------|
| Farm cash receipts             | 6.41    | 7.78    | 12.24   | 3.30    |
| Net farm income                | 12.31   | 20.92   | 20.89   | 6.98    |
| Agricultural exports           | 14.66   | 9.38    | 18.13   | 5.69    |
| Agricultural imports           | 4.31    | 7.34    | 13.05   | 1.33    |
| Agricultural net trade         | -       | 33.82   | -       | 24.20   |
| Nominal food expenditures      | 0.74    | 3.08    | 8.86    | 0.46    |
| Deflated food expenditures     | 0.87    | 3.16    | 4.03    | 0.72    |
| Food prices                    | 0.91    | 2.72    | 11.69   | 1.17    |
| Real food prices               | 1.24    | 2.80    | 3.72    | 1.29    |
| Farm input price index         | 1.00    | 3.48    | 11.01   | 2.38    |
| Farm expenses and depreciation | 3.61    | 3.24    | 13.71   | 2.48    |
| Real farm expenses             | 3.14    | 0.88    | 3.17    | 0.58    |
| Farm output                    | 7.67    | 4.38    | 5.99    | 2.00    |
| Index of agricultural prices   | 2.83    | 11.09   | 13.17   | 3.55    |

<sup>1</sup> Deviations from trends shown in Table 1, calculated as root mean squared percentage errors

Agriculture has been faced with a new source of instability during the past few years. These include factors which have affected consumer demand, international markets and production costs. Consumer disposable income in 1982 has declined to the lowest level in 25 years while committed expenses for mortgages and energy have increased sharply. Production-cost variations have arisen from large variations in interest rates, energy prices and wages. Firms are more vulnerable to such shocks as specialization and scale of operation increase and in the case of interest rates, as the debt/equity ratio increases. Trade is becoming more important to Canadian agriculture. Variations in world prices reflect the adjustment burden on a shrinking percentage of the residual, unrestricted trade, the depletion (until recently) of large grain stocks and wide fluctuations in exchange rates among countries.

This changing magnitude and source of instability has created concern about current stabilization programs. Existing programs were developed under a more stable but expanding economy. Producers want more comprehensive programs to offset the increased instability. Governments faced with large deficits are evaluating existing program commitments because of the potential for large increases in expenditures.

### **The economic and political setting for 1983-87**

In the establishment of the economic and political setting for Canadian agriculture, it is assumed that the most significant influences would be the expected slow growth and lower inflation rates in the general economy, the slowdown in foreign demand expansion and continuing effects of current government policies and programs.

Real growth in the Canadian economy is expected to slowly improve. An upturn is expected to start in late 1982, and increase modestly in 1983 and then more quickly thereafter.<sup>2</sup> Consumer real disposable income is not expected to increase until mid-1983 and then increase slowly. The short term recovery in the Canadian economy is contingent upon growth in the U.S. economy, increased domestic rebuilding of inventories and expansion in residential construction. Inflation rates in Canada are expected to quickly decline so that by 1984 the levels would be less than half those of 1980 and 1981 and then to continue at low levels. Input prices (interest, energy, wages, etc) to producers will increase much more slowly than in the past 2-3 years. This decline is assisted by the price

and wage restraints of the federal and provincial governments. Unemployment is expected to remain at high levels throughout the next 5 years. With low inflation rates and a strong trade balance, the Canadian exchange rate should improve modestly against the U.S. dollar. Thus, the advantages of a depreciated Canadian dollar experienced since 1977 are unlikely to be repeated during the next 5 years. The Canadian dollar has already increased considerably relative to European and Japanese currencies.

The effects of the current recession have been felt worldwide. This has intensified the pressure to enact policies of higher levels of protectionism and export promotion, as countries adopt trade policy measures to offset falling commodity prices and agricultural surpluses. As well, many developing countries have moved to protect foreign reserves in the face of huge increases in debt repayments and the cost of energy imports. Currently, there is a concern about both U.S. and EEC programs to export surplus grain and dairy products. During 1983, similar programs may be adopted for other products. These programs are not easily dismantled even if their economies regain a more normal growth pattern. Recognizing these problems, a meeting of the GATT was held Nov. 24-28, 1982, which reaffirmed their commitment "to reduce trade frictions, overcome protectionist pressures, avoid using export subsidies... and promote the liberalization and expansion of trade".<sup>3</sup>

The federal and provincial governments are assumed to continue a fiscal restraint program.<sup>4</sup> This will be especially true in the next 1 to 2 years, given the large deficits and increased expenditures generated from the slowdown in the economy. Existing agricultural programs are assumed to remain largely unchanged.

### **Mid-term outlook for commodities**

#### **Grains and oilseeds**

World grain production has continued to expand in response to sizeable annual price increases during the 1970's (e.g. 11-15% in the U.S. for wheat, corn and soybeans). Weak demand was created by declines in livestock feeding, higher North American exchange rates, and exchange controls on imports necessitated by large oil expenditures and debt repayments in the highest growth markets, the less developed countries.

<sup>3</sup> Draft Conference Statement, GATT Ministerial Session, Nov. 24-28, 1982

<sup>4</sup> This was stated as the first basic principle of economic management, emphasizing that: "We must persist on restraining government spending" from text of statement on the Economic Outlook and the Financial Position of the Government of Canada presented by the Minister of Finance, Oct. 27, 1982.

<sup>2</sup> Economic forecasts are based on the Conference Board in Canada, released Oct. 8, 1982



It is expected that world demand for grains would continue to grow during 1983-87, but at a slower rate during the past decade when consumption of world wheat grew by 3.2%, coarse grains by 2.4% and oilseeds (meal equivalent) by 5.2% and (oil equivalent) 4.2% annually.

The main factor influencing the grains and oilseeds market in the short term is expected to be the effect of the 1981 U.S. Farm Program which has resulted in very high accumulations of farmer-held reserves (e.g. 1.58 billion bu of corn in 1981-82) and the high likelihood of additional increases in 1982-83. The specific release prices of these grain stocks will act to constrain price increases at those levels and with a possible rising support price, the program could hold prices to a very narrow band for at least the next 2-3 years.

Because of the pressure to reduce the treasury cost of this program, there may be an increase in subsidized grain exports such as the recently announced 3-year \$1 billion U.S. program of interest-free credit and loan guarantees. This would effectively lower world prices.

Despite a short-term low price outlook, there are a number of basic factors which should stimulate growth in demand in the medium term. These include the expected recovery in the world economies, increased livestock feeding, especially in North America, and continued growth in demand for meat in many countries. As a result, rising world prices are anticipated in the medium-term forecast, after 1983. A composite forecast was used to obtain estimates of expected world prices, from which Canadian prices were derived.

Assuming these forecasts are correct, then for the period 1983-87, Canada is likely to experience annual average price increases of 6% for wheat, 8% for barley and 8% for rapeseed (Table 3). Using these price forecasts, it is expected that total area devoted to grains and oilseeds in Canada would increase at an annual rate of 0.2%. Area devoted to wheat would decline by 0.2%, would increase by 1.4% for coarse grains and decline by 2.1% for oilseeds. Given historical increases in yields, total production would increase annually by 1% for wheat, 3% for coarse grains and decline by 1.4% for oilseeds.

Given expected consumer income, population growth and livestock production, the domestic consumption is expected to grow at an annual rate of 0.9% for wheat and 3.3% for coarse grains.<sup>5</sup>

Assuming no change in stocks, this would mean that supplies available for export would increase by 1% for wheat and 2.3% for coarse grains.

<sup>5</sup> This would generate wheat and coarse grain exports of 28-29 million tonnes in 1987.

TABLE 3. FORECAST OF ANNUAL AVERAGE GROWTH 1983-87 (%)

|                      | Wheat | Coarse grains | Oilseeds |
|----------------------|-------|---------------|----------|
| Prices               | 6.0   | 8.0           | 8.0      |
| Area planted         | -0.2  | 1.4           | -2.1     |
| Yield                | 1.2   | 1.6           | 0.8      |
| Production           | 1.0   | 3.0           | -1.4     |
| Domestic consumption | 0.9   | 3.3           | -        |
| Potential exports    | 1.0   | 2.3           | -        |

### Livestock (beef and pork)

Beef production in 1982 will be about 9% below the 1977 peak. Rebuilding of the breeding herd, which started in 1980, was reversed again in 1982. Beef prices, after rising sharply in 1978 and 1979, have remained largely unchanged for the last 3 years in the face of 3-4% increases in production in 1980 and 1981, lower consumer demand, especially in 1982, and low pork prices in 1979 and 1980. Stable beef prices with increasing feed costs and debt charges reduced feedlot margins and break-even prices for feeders. Confronted with lower calf prices, producers had little incentive to rebuild herds.

The Australian drought which increased their cow slaughter this year, resulting in higher beef exports to Canada, has caused additional downward pressure on prices.

As the North American economy begins to recover in 1983 and with lower feed and interest costs, prices and profitability in the beef sector will likely improve. This will induce some herd rebuilding, likely starting in 1984, thereby lowering beef production for most of the 1984-87 period as producers withhold females from slaughter. With beef prices being largely determined in the U.S. market, it is expected that annual price increases in Canada will be about 9% during 1983-87 or about 3% faster than inflation (Table 4). The cow herd should be 88% of the 1975 peak by 1987 and production 94% of the 1977 peak.

Pork production grew almost 15% annually from 1976-80, and has remained near this level since then. Net exports are now close to 20% of production, compared with a net import basis during the mid-1970's.

TABLE 4. FORECAST OF ANNUAL AVERAGE GROWTH 1983-87 (%)

|             | Beef | Pork |
|-------------|------|------|
| Prices      | 9.0  | 5.0  |
| Consumption | 1.3  | 1.5  |
| Production  | 0.8  | 0.6  |

The high prices for pork since this spring and declining feed costs are expected to generate a large production response in the second half of 1983 and this should continue through 1984 and early 1985. A stronger North American economy and higher beef prices will help maintain prices, providing export markets remain. Lower production and higher prices are expected in 1986 and 1987.

The annual average price increase for pork is expected to be about 5%, or slightly below the inflation rate. Percentages will vary substantially by year, with little increase in 1983-85 and large increases in 1986-87. Production should increase at an annual rate of about 0.6%, exceeding this trend in 1984-85. This low rate of increase reflects that production will likely turndown in 1986-87.

### Dairy and poultry

For both dairy and poultry, price increases in the next 1-2 years should be modest. Lower grain prices and interest rates and slower rate of general inflation will contribute to slower increases being reflected in the cost of production formula. The target price for industrial milk is expected to increase at an annual rate of 7% and the average farm level price increases for poultry and eggs would be 6% (Table 5). This, coupled with a stronger economy, should increase consumption more rapidly than in the past. The forecast is for no further decline in per capita consumption of dairy products, a substantial change from the past two decades.

TABLE 5. FORECAST OF ANNUAL AVERAGE GROWTH, 1983-87 (%)

|             | Dairy products | Poultry and eggs |
|-------------|----------------|------------------|
| Prices      | 7.0            | 6.0              |
| Consumption | 1.0            | 1.5              |

### Horticulture

The extent of domestic consumption from imports is likely to continue to increase during 1983-87 for both fruits. Prices for fruits should rise about 1 to 2% more slowly than the rate of inflation as supplies worldwide have increased faster than demand (Table 6). For similar reasons, vegetable and tobacco prices should also rise at less than the rate of inflation. Consumption may increase faster than production, thereby lowering the self-sufficiency ratio for Canada.

TABLE 6. FORECAST OF ANNUAL AVERAGE GROWTH, 1983-87 (%)

|             | Fruits | Vegetables |
|-------------|--------|------------|
| Prices      | 5.0    | 4.0        |
| Consumption | 2.6    | 2.0        |
| Production  | 0.6    | 0.9        |

### Summary and implications

Retail food prices are expected to rise about 6% per year during the 1983-87 period, much more slowly than in the 1978-81 period (Table 7). However, after 1983 and 1984 food price increases may exceed non-food price increases by 1-2%. The highest rate of growth is expected for beef, sugar, fats and oils and the lowest rates of growth are expected for fruits, vegetables and pork.

TABLE 7. FORECAST OF ANNUAL AVERAGE GROWTH, 1983-87 (%)

| Product          | Retail food prices |
|------------------|--------------------|
| Beef             | 8                  |
| Pork             | 5                  |
| Poultry          | 7                  |
| Dairy            | 7                  |
| Cereals & bakery | 7                  |
| Vegetables       | 5                  |
| Fruits           | 5                  |
| All food         | 6                  |

Agricultural income (as measured by cash receipts) is likely to grow more slowly than in recent years. Farm price increases, on average, will be modest. This, combined with the low incomes of 1982-83, will reduce production incentives, especially for crops. In addition, the long biological lags for beef will restrict levels of livestock supply. Thus, growth in agricultural output is likely to be slow by historical standards, about 2.5% annually.

With lower food price increases and rising consumer incomes, larger increases in food expenditures can be anticipated. As a result, growth in agricultural trade may be limited as production increases slowly and domestic consumption expands. In addition, the possibility of continued weak foreign economies, increased export promotion by competitors, import restraints in many countries, and a stronger dollar will reduce growth in demand for Canadian agricultural products.

Nevertheless, despite the difficult times projected through 1983, especially for the crops sector, public and private planners need to look beyond the current problems and plan for renewed growth opportunities expected by the mid-1980's.



## Farm income outlook

Ernie Boyko\*

My objective today is to describe, in global terms, what our analysts foresee as being the results, in income terms, of the farm production and marketing activities for 1982. I will extend this scenario to portray our analysis of the year to come.

The principal components of farm income include farm cash receipts, or what farmers sell to other sectors, farm expenses or what farmers buy, and what is left over or, realized net income.

For 1982 we foresee very little change in farm cash receipts compared with 1981. That may not be very surprising. However, what probably is surprising is the fact that we are projecting a moderation in farm expenses. We are projecting farm expenses for 1982 to reach a level of \$15.2 billion, a rise of between 2 and 3%.

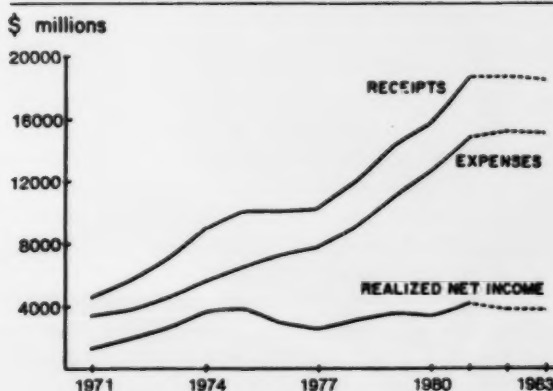
Realized net income is expected to drop by a little more than 9%, to a level of \$3.8 billion.

Figure 1 illustrates how these three series have behaved since 1971. The top line in Figure 1 represents farm cash receipts. You can see that for most of the decade they have risen and we are showing them to be little changed in 1982.

The second line shows expenses have also risen; in fact, since 1977 they have risen quite sharply but we are suggesting that these increases are now moderating.

Realized net income, the third line, has traditionally been very volatile, and for 1982 we are projecting a 9% decline.

FIGURE 1. CANADA



\* Director, Agriculture Statistics Division, Statistics Canada

Last year at this conference we projected a 15% decline in net income and in July 1982 we updated that forecast and suggested 17% might be more in order. Given the kind of industry that agriculture is and the kind of year we have had, we do not feel too badly about our performance. The main difference between this series of projections and our previous ones has to do with our assumptions on cattle prices and interest expenses.

We now see, of course, that the summer prices for beef did not hold into the fall and, as well, we did not completely foresee the drop in interest rates that has occurred.

Since farm cash receipts and expenses are rather large in relation to net income, a small error in either one can lead to major changes in net income.

### Crops, 1982

Nearly one-half of farm cash receipts comes from crops. Canada's number one crop is wheat, and wheat cash receipts declined by about 10% last year. Marketings were up but prices received were lower. In addition, because of lower international wheat prices, the Wheat Board payments in 1982 were substantially below the payments made in 1981.

Coarse grains faced a similar situation. The overall effect was a 4% decline in receipts.

Oilseeds also declined by 9%. Rapeseed production during the past 2 years has been down, limiting marketings. In the August-December period of 1982 the relatively poor quality of the crop is also putting downward pressure on farm prices.

For fruits and vegetables, perhaps the most significant event of the year had to do with potatoes. Potato production was up and consequently prices fell sharply. Increases in receipts from other horticultural commodities offset these declines and receipts for this group increased by 10%.

Overall, receipts from the sale of crops declined 4%.

### Livestock and animal products, 1982

In 1982, livestock and animal product receipts are expected to increase by 5%. These cash receipts represent about 51% of total farm cash receipts.

For cattle and calves, we are projecting a 1% decline in overall cash receipts. Cattle slaughterings were up but average carcass weights were down by about a similar amount and, as well, increased cow slaughter tended to reduce average farm gate prices.

Hogs, on the other hand, were more of a bright spot in 1982. Hog production dropped by about 3% but hog prices more than made up for this. Overall, we see a 20% increase in hog cash receipts.

Dairy receipts tend to be more stable than receipts from cattle and hogs. We expect about a 9% increase which is mainly due to price change.

Finally, looking at poultry and eggs, we are suggesting a slight decline. Lower costs of production which were eventually translated to lower prices to producers led to a slight drop in receipts.

Overall, livestock receipts are up 5%.

## Expenses, 1982

Our analysis suggests that farm expenses have risen much less in 1982 than they have in the past. We are suggesting a 3% increase. Now, that may catch a lot of people by surprise. It certainly made us look at our analysis more than once.

People may ask: "How can farm expenses go up by no more than 3% when we all know of examples where prices have increased?" Well, our analysis suggests that not all prices have increased and some, in fact, have decreased. As well, we know that farmers are not in business to lose money and that it is possible through careful management to reduce one's expenses, especially for a short period of time.

At \$2.2 billion, interest charges are the second largest expenditure item faced by Canadian farmers. In 1981, interest charges were the highest cost. We are suggesting an overall decline of about 2% and we are basing this on the fact that interest rates have dropped and that the demand for credit has also dropped.

We are projecting overall machinery costs to rise by 15%. This item includes fuel, repair parts and other variable costs but does not include machinery acquisition costs. The fuel portion of this item will rise much more than the repair portion. Fuel has risen in the order of 24%, while repairs and parts have risen by 6%.

Overall, fertilizer costs should be down in 1982. In the West there was a decline in the price of fertilizer, while use appears to have been stable.

When one considers that over one-half of farm cash receipts comes from livestock and animal products, it should not be surprising that feed represents a large cost for farmers. Feed grain prices have softened in 1982. One must realize, of course, that this is only one aspect of what we call "prepared feed". Nevertheless, a slight change can have quite an impact on total expenses and net incomes. Feed costs are therefore projected to decline by 4%.

With no change in cash receipts and a small increase in expenses, our conclusion is that realized net income will drop by about 9% in 1982.

How individual farms made out varies significantly by size, region, and by their type of production. We learned how farm size affects producers receipts from the 1981 Census of Agriculture which was released earlier this year. The results of the census indicated that about one-quarter of Canada's farms have gross farm sales of less than \$5000.

On the other hand, about 75% of agriculture's total sales are generated by 25% of Canada's farms, this group representing all farms with gross farm sales greater than \$50 thousand per year.

## Outlook for 1983

For 1983, we are expecting very little change in farm cash receipts, further softening in expenses and little change in realized net income. In terms of agriculture's performance over the past decade this seems quite surprising. Some of the assumptions that were used in making the projections for 1983 follow.

### Farm cash receipts

Farm gate prices for the major commodities, including wheat, feed grains, cattle, hogs and poultry, are not anticipated to change much during the year to come.

Grain stocks certainly are ample and there is room for increased sales. It will be a challenge to see just how much of this crop we can move and sell. Feed grain prices, of course, are projected to remain weak at least into next fall.

Lower feed grain prices may stimulate some extra feeding activity in the livestock sector. While there may be fewer beef animals on farms to be slaughtered, we would expect them to be reaching heavier weights. Overall, because of changes in mix (a higher steer to heifer slaughter ratio) prices should be up at the farm gate.

For hogs, it is unfortunate that we don't have the USDA December hog report, nevertheless hog production should increase next year. There is considerable debate as to how much of an increase there may be.

For dairy, we see very little overall change: perhaps slight adjustments in price and quantities produced to suit market needs.

In summary, we are suggesting a small drop in farm cash receipts.

## Expenses

For farm expenses, we are also suggesting a drop. There hasn't been a drop in farm expenses at the national level since 1957 and prior to that since before the Second World War. Forecasting turning points in agriculture is difficult and this year's income forecasts were difficult to finalize.

We are suggesting a 1 to 2% drop in expenses for a total of about \$15 billion.

Feed prices are soft, and there may be a tendency for farmers to use their own feed as opposed to buying prepared feeds.

Interest charges are expected to be lower than in 1982.

Energy prices increased quickly during the past 2 years but price increases should moderate in 1983.

This, of course, will affect fertilizer and chemical costs as well.

Finally, since new machinery purchases have slowed down, depreciation charges should decline.

Our conclusion, based on existing conditions, is that we see a slight drop in net farm income.

Users of these forecasts should be cognizant that there is scope for change in our forecasts. Our projected 1% decline in net income could change to a slight increase, or decrease more substantially, depending on changes to our assumptions.

A \$100 million decline is smaller than our normal margin of error. It should be emphasized that, even since we prepared these projections, governments have announced individual programs to suit the needs of their province. We could not possibly second-guess everything that might happen in this regard.

## Farm outlook implications

*Dr. Brian B. Perkins\**

It is appropriate that Ernie Boyko and I should be sandwiched together on the program, since our two departments work closely together in the preparation of the farm income outlook.

Despite the 9-10% decline in realized net farm income anticipated in 1982 for Canadian agriculture as a whole as presented by Mr. Boyko, the same will not be true for all regions because of differences in agricultural production and markets. For example, in Quebec and British Columbia, realized net farm income in 1982 is expected to register an increase; in Quebec because of the improved market for hogs and in British Columbia because of the importance of dairy and poultry to net farm income. Other regions are expected to experience lower realized net farm income, with the Atlantic region as a whole having the worst decline (27%) due to the potato production and market situation.

Examination of realized net farm income for different types of farms reveals corresponding variation. Realized net farm income for potato farms, which are mainly in the Atlantic region, is expected to decline 28% from the 1981 level. A weak world demand for grains, resulting in lower grain prices and lower Canadian Wheat Board payments, combined with increases in operating expenses, will likely reduce realized net farm income for grain farms in the Prairies by about 21%. By contrast, hog producers are expected to have a much more favorable year after several years of low returns. Cattle farms, however, are still in a depressed income situation despite low feedgrain prices. In general, realized net farm incomes of the farmers producing commodities under national supply management arrangements are expected to increase — an estimated increase of 12% for dairy farmers and just over 2% for poultry farmers over 1981.

With the overall decline in farm incomes in 1982, the financial situation for most farm businesses has deteriorated. There has been a marked increase in such measures of financial stress as the number of bankruptcies, foreclosures and accounts in arrears. However, the financial troubles of the industry should not be exaggerated. Available information suggests that the vast majority of farmers intend to remain in farming, and few expect to experience difficulty in obtaining the necessary amount of credit for operating and investment next year. Nevertheless, many highly leveraged operators facing lower incomes in 1982 have had to take measures to avoid financial

failure: most commonly in the form of additional borrowing, but also by changes in production activities, by reductions in the use of purchased inputs, through increases in off-farm employment and, when necessary, partial liquidations.

Liquidations during a period of high interest rates and depressed farm incomes have resulted in downward pressure on farmland prices. Transactions are too few for current market prices to be a reliable guide to land values and there is great variation from region to region. However, purchase prices in 1982 are as much as 15 to 20% below 1981 levels in some areas. Declining farmland values are a matter of great concern, since credit availability could be sharply reduced if land values deteriorate further. Moreover, capital gains from rising farmland prices have for many years been a major source of increasing wealth for farmers and a source of retirement income.

Turning to the outlook for 1983, the realized net farm income level in 1983 is expected to improve in all regions except the Prairies. In the Prairies, income will be lower because grain receipts are expected to decline further.

An improvement in livestock markets, combined with gradual relief in major input inflation pressures, should result in an increase in realized net farm income for all livestock producers. This increase, however, will be more than offset by the continued decrease in realized net farm incomes of grain producers, resulting in a slight overall decrease in the Canadian average. Net incomes of potato farmers are also expected to decline further in 1983, although the decline will be small.

Looking beyond 1983, Canadian agriculture will be influenced by the predicted slow recovery from a depressed world economy. Slow and uncertain growth in world agricultural markets will generate stiff competition among exporting countries and, possibly, increased protectionism by importing countries. While inflation and interest rates are expected to be down sharply through 1983, the longer term outlook is less clear. If the Conference Board projections of 4% annual growth in real GNP are correct, the domestic market will be a source of economic recovery for agriculture, despite continuing high unemployment rates.

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Nevertheless, farm product price increases are expected to be limited by international market forces. Under these circumstances, cost control will be the key to profitable production. Continuing high energy prices will generate increased interest in fuel conservation and substitution, and increased attention to cost effectiveness in the application of fertilizers and chemicals. The risk associated with floating interest rates will encourage producers to reduce their debt commitments where possible, with the demand for new credit based more on cash flow considerations than on long-term profitability. For example, machinery maintenance and repair will be used to extend the machinery replacement cycle. The adoption of labor-saving farm machinery and equipment may be slowed down by the expected high levels of unemployment and resultant reduced rate of increase in farm wage rates.

The changing financial situation in agriculture today will have considerable impact on the future structure of the industry. The average farm in the 1980's has more debt than its predecessors and at much higher rates of interest. Debt/income (realized net income) ratios, which reflect the burden of debt on farm incomes, have increased from 3:1 during the early 1970's to 5:1 in the early 1980's. Moreover, farmers' liquidity is declining, as a result of increasing proportions of long-term assets and short-term liabilities. On top of all this, the financial risks of farming are exacerbated by the prospect of unstable international capital and commodity markets.

The structural changes resulting from this new financial scenario could take several forms. The predominant factor will be the reduced ability to withstand financial losses, thereby creating an aversion to risk. Changes to reduce risk might include movement away from very large farms which can require millions of dollars of investment, and less emphasis on specialization of production. Tenure patterns may change, as farm operators elect land rental over ownership, with a preference for crop share rather than cash rental agreements — again with the object of reducing producer risk. An increase in partnership, cooperative, and corporate farm organizations may result as a form of risk sharing and to obtain more equity financing.

The increased burden of debt on farm incomes in the 1980's combined with market instability will likely reduce the number of farm business entrants. Clearly there is a need for more research on structural change in farming.

Future productivity growth and overall performance in Canadian agriculture will be influenced by the predicted slow growth in farm income, as well as by structural changes. A recent study for Agriculture Canada indicates that total factor or input productivity in Canadian agriculture continued to trend upwards during the 70's but at a markedly lower rate than in the 60's. It remains to be seen whether productivity growth improves in the 80's. The uncertain investment climate and the constraints which might be placed on agricultural development programs are both matters of concern.

CHART 1. 1982 REALIZED NET INCOME AS A PERCENT OF 1981 BY REGION

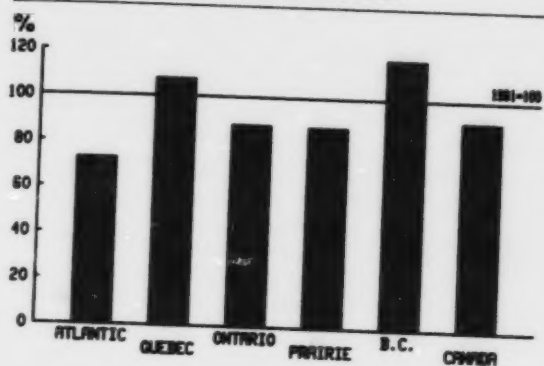


CHART 3. 1983 REALIZED NET INCOME AS A PERCENT OF 1982 BY REGION

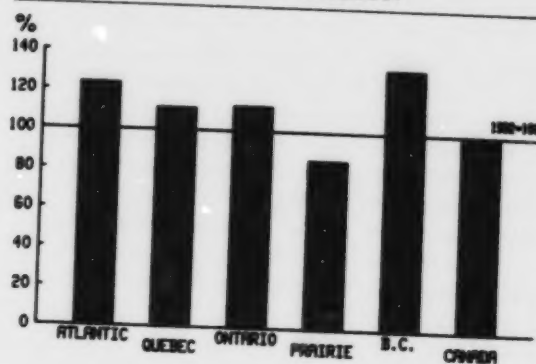


CHART 2. 1982 REALIZED NET INCOME AS A PERCENT OF 1981 BY TYPE OF FARM

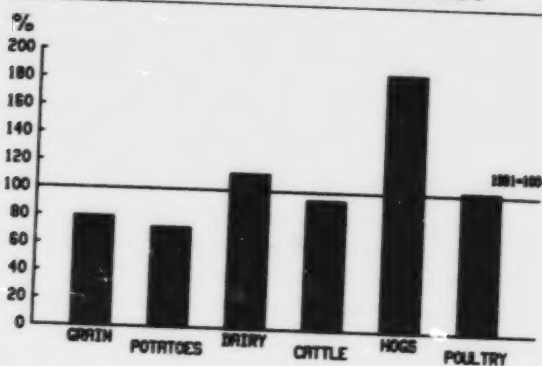
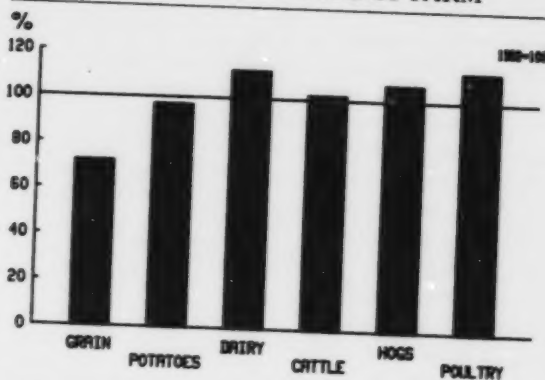


CHART 4. 1983 REALIZED NET INCOME AS A PERCENT OF 1982 BY TYPE OF FARM



## Food prices

Brian Davey

At this conference last year, Agriculture Canada forecast that retail food prices in Canada would increase by between 8 and 10% in 1982. The actual outcome is likely to be at the lower end of this range. We expect this relatively modest rate of food price increase to continue in 1983.

My presentation will be in three parts. First, I propose to review briefly the performance of food prices in Canada during 1982, identifying the principal causes of the price movements we have witnessed during the year. Second, I want to run through the various assumptions underlying the outlook for retail food prices next year. Finally, I will present our forecast for 1983. You can find more detail of my analysis in the December 1982 issue of Food Market Commentary.

### Food prices in 1982

The increase in retail food prices as measured by the Consumer Price Index is expected to average slightly below 8% in 1982 over the 1981 average. Prices for food purchased from stores are up by about 7%, while prices for food purchased in restaurants increased by 10%. This is the lowest increase for several years and, indeed, the first year since 1977 net food prices have increased by less than 10%. Moreover, food prices increased less than prices of other goods and services on average in 1982 — the food price increase of less than 8% compares with the Conference Board of Canada's forecast of 10.7% for the all-items Consumer Price Index.

I would now like to take a brief look at the year on a quarterly basis. During the first quarter, food prices increased 1.9% from the last quarter of 1981 and were up 6.3% from the first quarter of that year. During this 3-month period, fresh fruit and vegetable prices rose substantially, mainly because a frost in Florida sharply reduced shipments of salad vegetables and citrus fruit to Canada.

#### YEAR OVER YEAR PERCENTAGE CHANGES IN THE CONSUMER PRICE INDEX

|      | Food prices | All items |
|------|-------------|-----------|
| 1977 | 8.4         | 8.0       |
| 1978 | 15.5        | 8.9       |
| 1979 | 13.2        | 9.1       |
| 1980 | 10.7        | 10.2      |
| 1981 | 11.4        | 12.5      |
| 1982 | 7.6         | 10.7      |

Large price increases in May and June resulted in food prices rising by 4.1% in the second quarter of 1982; compared with the same quarter in 1981 they increased by 8.1%. The largest price increases were for fresh fruit, pork and beef, due to reduced supplies and a decline of about 3% in the value of the Canadian dollar against the United States dollar.

Many of these upward pressures dissipated during the third quarter. The Canadian dollar appreciated against the U.S. dollar from a low of 76.8 cents U.S. in June to above 81 cents in September. Interest rates decreased. Beef supplies increased and cattle prices dropped in North American markets. Ample supplies of domestically grown vegetables were generally available across Canada. Thus, during the third quarter food prices increased by only 1.9% from the second quarter and were 7.5% above the levels of a year earlier.

During the fourth quarter, the month-to-month price movements are expected to be quite small. In October 1982, for example, food prices decreased by 0.3% from September, and were 6.5% above the level of October 1981.

### Developments in food retailing

Later on, I want to say something about the government's 6 and 5 program which was announced during 1982. I would like to spend a minute or two now outlining some recent events in the food industry which have had a bearing on the trend of retail food prices.

First, there has been some restructuring of conventional supermarkets. In Eastern and Central Canada, so-called "warehouse stores" have been opened, through either the conversion of existing stores or the opening of new outlets. Warehouse stores generally carry the major food items offered by conventional supermarkets but are able to cut costs by reducing brand selection and customer services. In the West, the trend was towards increasing the number of "box stores" which typically carry fewer items than the conventional supermarket. In both cases, the aim was to increase the turnover rate and reduce labor costs, thus enabling goods to be sold at prices below those of the conventional supermarket.

Second, in late 1981 and early 1982, food retailers in several cities, including Ottawa, Toronto and Winnipeg, engaged in "food price wars" in an effort to

increase sales and market share. During the "wars", prices were reduced on such staple items as bread, butter, eggs, milk and sugar. The length of the "war" varied from city to city, but it typically ended as abruptly as it began with prices reverting to "prewar" levels.

## **Factors affecting food prices in 1983**

So much for 1982. I would now like to turn to the retail food price outlook for 1983, beginning with a review of the various economic factors affecting the supply and demand for food. These factors can be grouped into two broad categories. First, there are those, such as exchange rates, interest rates and consumer incomes, which are external to the food system. Second, within the food system, there are several cost factors such as commodity and energy prices, labor costs and competitive practices — like those I have just been describing — which influence retail prices. The effect of any one of these cost factors on food prices will depend on its importance in food production, processing, distribution and retailing costs and the magnitude of the cost change. On average, farm commodities and labor comprise the largest cost components in retail food prices.

I now want to consider these factors in turn, setting out for you the assumptions on which our 1983 food price forecast is based. The assumptions on economic factors are based on forecasts by the Conference Board of Canada, while those relating to commodity prices are from the Marketing and Economics Branch of Agriculture Canada.

### **Exchange rates**

Between December 1981 and September 1982, the Canadian dollar declined by 4% against its United States counterpart. As already noted, this put upward pressure on Canadian prices of traded food commodities, such as meats, and on prices of imported foods, especially fresh fruit and vegetables.

The food price outlook for 1983 is based on the assumption that the value of the Canadian dollar will improve slightly against the U.S. dollar during 1983. The average for the year is assumed to be about 82 cents U.S., slightly above the 1982 average of about 81 cents U.S.

This assumption reflects Canada's surplus in merchandise trade, as well as an inflow of long-term debt capital. Moreover, with Canadian interest rates trending downwards in step with U.S. rates, there is unlikely to be a need to defend the Canadian dollar against speculative pressure.

### **Interest rates**

Although Canadian interest rates were lower in 1982 than in 1981, they were still well above the levels of previous years. The Conference Board of Canada expects interest rates to be a little lower in 1983, with the prime rate averaging about 14% compared with over 16% in 1982. Interest rate declines could lower production costs and the cost of holding inventories and financing debt in the food sector in 1983 as compared with 1982.

### **Energy costs**

So far as energy costs are concerned, two increases in the field price of conventional old oil are scheduled for 1983 under the energy agreement between the Alberta and Canadian governments. On January 1, 1983 the price will increase by 15.5% to \$29.75 a barrel. A second increase would bring the price to \$33.75 a barrel on July 1, 1983. However, due to the depressed state of world oil markets, prices may not rise as much as expected in the original agreement. The July increase, for example, is expected to be only about \$2 a barrel. Moreover, consumers of energy may not feel the full effect of the January increase because of an expected reduction in the federal petroleum compensation charge.

### **Packaging**

Manufacturers of packaging materials expect that, overall, the increase in packaging costs for food products next year will be less than in recent years. In 1983, prices of paper products are likely to increase by about 10% due mainly to higher wage settlements. Metal prices are expected to increase about 6% — about half the 1982 increase — as there is a surplus of metal products available on world markets. The price increase for glass products could be about 8%.

### **Labor costs**

For the first 9 months of 1982, wage settlements in the food and beverage industries averaged 10.9%, compared with nearly 13% for the corresponding period in 1981. The Conference Board is expecting the rate of increase in industrial wages to slow down in 1983 to about 8%. Assuming this applies to the food industry, labor cost increases in food manufacturing and in the food wholesaling and retailing sectors may be smaller in 1983 than in 1982.

### **Transportation**

During the first 9 months of 1982, rail freight rates for a selection of food products averaged 14 to 17% above the levels of 1981. Due to the slowdown in energy price increases, transportation cost increases are expected to be lower in 1983 than in 1982.



### **Farm commodity prices**

I do not propose to say very much about the outlook for farm commodity prices in 1983. This topic has already been covered earlier this afternoon and will be discussed in much more detail during the concurrent commodity sessions tomorrow morning. I would, however, like to highlight a few key points which have a particular bearing on the outlook for retail prices.

First, record or near-record harvests and weak demand are expected to maintain downward pressure on grain and oilseed prices in 1982-83. Second, given expected changes in cattle and hog slaughter in Canada, cattle prices could average a little more in 1983 than in 1982, but hog prices are not expected to change much from 1982 levels. Third, near-record apple and potato crops in the United States, coupled with Canada's above-average production, will put downward pressure on wholesale prices of these commodities. Finally, supplies of other storable vegetables during the winter months are also expected to be above the levels of a year ago.

### **Income and expenditures**

Real disposable income in Canada declined by 0.8% for the first half of 1982 from its level in the first half of 1981. Real total expenditure fell 2.1% over the same period, although real expenditures on food increased by 1.5%. The Conference Board of Canada is forecasting that the economy will recover slowly in 1983, but growth in real personal disposable income will not occur until the second half of the year. Real total personal expenditures are forecast to increase by less than 1% next year. The implication is that, while there may be some strengthening next year, demand for food — especially for items like beef and restaurant meals — will remain quite weak in 1983 and there will be little upward pressure on food prices from the demand side.

### **The 6 and 5 program**

I should also say a word or two about the government's 6 and 5 program. In June 1982, the government set a target of reducing inflation and holding wage and salary increases to 6% during the year ending in July 1983 and to 5% in the following year. Federal agencies that regulate the prices of goods and services, including food, are expected to follow these guidelines.

Federally administered prices in the food sector concern primarily producer prices of industrial milk, eggs, chicken and turkey. Thus, the Minister of Agriculture has announced that increases in support prices for butter and skim milk powder would be limited to 6% in 1982-83 and 5% in 1983-84. The national egg, chicken and turkey agencies have agreed to do their best to adhere to the guidelines. Similarly, following meetings with the Minister, representatives of the food processing, distribution and retailing sectors have expressed their support for the guidelines.

The effect the 6 and 5 program will have on retail food prices cannot be assessed at this time. However, a few points must be borne in mind. First, the products directly affected by the program make up only about 16% of the total food basket. Second, retail food prices are dependent to a considerable extent on commodity prices, which in turn are heavily influenced by prices in world or North American markets. There are a number of other factors, such as energy prices, interest rates and the exchange rate over which the food industry has no control. Nor should the biological nature of agricultural production — and the resultant instability of commodity markets — be forgotten. Nevertheless, the support given to the 6 and 5 program by all sectors of the food industry suggests that the program could have a moderating influence on food price increases over the next 2 years.

### **Food price forecast 1983**

To sum up, the strongest pressures on food prices in 1983 are expected to come from higher crude oil prices and wage increases, even though we expect energy price increases and wage settlements to be lower in 1983 than in 1982. The exchange rate and interest rates, which were important factors in 1982, are likely to lose some of their significance next year. Exchange rates are expected to remain relatively stable in 1983, while interest rates are expected to average below 1982 levels. Farm commodity prices and prices of imported foods are generally expected to remain stable during most of next year.

Our forecast, therefore, is that food prices will increase slightly less in 1983 than in 1982. This year the overall increase in food prices will be under 8%. For 1983, we are forecasting an increase of 6 to 8%, with a good possibility of being at the lower end of this range. The slowdown in 1983 is due in part to lower oil

price and wage increases, although, as I have just explained, these factors will be putting upward pressure on food prices next year.

Prices for food purchased from stores are expected to increase by 6 to 8%. A price increase of 5 to 7% is forecast for food purchased from restaurants. The food-service industry uses labor and energy more intensively than the rest of the food system, hence a major reason for the lower forecast for food purchased from restaurants is the smaller increases in wages and energy prices expected in 1983.

In conclusion, I must point out that this forecast is sensitive to the assumptions on which it is based. For example, the assumption about the exchange rate is quite critical so far as a forecast of retail food price increases is concerned. In other words, if you change the assumptions you change the forecast. In this regard, you may want to look at the final section of the Food Market Commentary article on the 1983 food price outlook where the implications of alternative assumptions for the exchange rate, interest rates and wage increases are analyzed.

# International meat trade: trade barriers and trade rules

*M.N. Gifford*

When Al Boswell asked me to present this paper he stressed that what he was looking for was a description of the trade policy background against which international trade in meat has evolved and is still evolving.

With that request in mind, what I will try to do today is to explain what rules govern international trade in meat, what the barriers are, and to put all this in a North American context, recognizing that North American livestock production has become increasingly interrelated with the rest of the world.

## Trade rules

Since 1947 virtually all major trading countries, with the notable exception of the USSR and China, have been operating under a set of multilateral trade rules embodied in the General Agreement on Tariffs and Trade (GATT). The GATT is different from most other international organizations in that it operates against the background of contractual rights and obligations.

The cornerstone of the GATT is the principle that trade measures should be applied in a non-discriminatory fashion — the Most-Favored Nation or MFN principle. The GATT also spells out the conditions under which countries can take offsetting action against dumped or subsidized imports — that is, action to offset so-called "unfair" trade practices. In addition, the GATT also specifies what recourse member countries have when they face injurious but "fair" low-cost import competition.

As well as specifying rules of trade conduct, the GATT also provides a forum for periodic trade negotiations, the results of which are "bound" in the GATT. A country may subsequently renegotiate a binding agreement but if it does so it must offer appropriate compensation.

Lastly, the GATT provides a mechanism for dispute settlement. That is, when a member country believes that another country is acting in a manner inconsistent with its GATT obligations, the affected country can ask for a panel to examine the facts of the case and to make appropriate recommendations or rulings.

This, in a very abbreviated forum, is what the GATT is all about. However, it should be emphasized that the GATT is a fragile instrument. It depends totally on the willingness of the member countries to make it work. The GATT is not an international court. Its decisions are not enforceable in a judicial sense. Moreover, it is a fact that from time to time countries have introduced domestic legislation which is, to a greater or lesser degree, inconsistent with their GATT rights and obligations. However, such actions have tended to be the exception rather than the rule. Therefore, it can be fairly said that although it is by no means perfect, the GATT has, since 1947, allowed international trade to be conducted largely under the rule of law rather than the rule of the strongest. It is apparent that it is the smaller countries, such as Canada, which have the most to lose if world trade reverted to a bilateral system where the smaller countries have to deal one on one with the larger economic powers.

At this juncture one may well ask how all this trade-lawyer jargon relates to international trade in meat. Let me give you a specific example. During the Tokyo round of GATT negotiations which concluded in 1979, the EEC agreed to bind in the GATT access for 10 thousand tonnes of beef, free of variable levies and subject only to a fixed tariff. Entry under this item was circumscribed by certain quality specifications. To make a long story short, the beef had to be of a quality equivalent to U.S. Prime or Choice grade. Initially, the EEC and the U.S. argued that since the U.S. had paid for this concession only U.S. beef should be eligible. This argument struck at the heart of the GATT's principle of non-discrimination and Canada requested a GATT panel to make a ruling. The panel found that Canada could certify that certain grades of Canadian beef met the EEC quality specifications and therefore Canadian beef should be eligible for entry under the 10 thousand tonne levy free quota. Canadian beef is now entering the EEC.

This example illustrates two important principles. Although a GATT trade concession may be negotiated initially on a bilateral basis, the results of the negotiation must be extended on a non-discriminatory, multilateral basis. Secondly, in this particular case, Canada was dealing with the world's two largest trading powers. Nevertheless, by being able to invoke the GATT rules and dispute settlement procedures, Canada was not at a disadvantage because of its smaller size.

## Boy scouts, good guys and bad guys

It has often been said that agricultural trade as a practical matter has never been subject to the same multilateral disciplines as trade in industrial products and that countries which act or try to act as if it were are a bunch of boy scouts, particularly when other countries appear to flaunt the spirit if not the letter of the GATT. The reality, I would submit, is that there are no boy scouts and no bad guys. No country is all white and no country is totally black. All countries are various shades of grey. If a country is extremely competitive in a particular product it tends to trumpet the virtues of freer trade. If a country has a product that is import sensitive then it tends to emphasize the "political realities" which limit its ability to change the status quo.

The fact of the matter is that most developed market economies regard the dairy and, to a lesser extent, the beef sector as particularly import sensitive. In this regard, agriculture in most developed economies is no different from the industrial sector which has its own import sensitive products, such as textiles and clothing, footwear, steel, and, more recently, automobiles.

The basic question is how do you reconcile the short-term domestic, political, social and economic imperatives which argue for import protection with the longer term concept that freer trade allows countries to specialize in those products which they produce best. Put in its simplest terms, trade is a two-way street. A country has to pay for its imports by exporting. However, governments do not act because of some vague belief in an economist's theoretical concept. They act in what they perceive to be their national economic interests. For a country such as Canada which relies on exports for one-third of its income (and in the case of agriculture the figure is closer to 50%) it is evident that our national interest lies in strengthening the multilateral trading system. In concrete terms this means better and more predictable terms of access to export markets, greater disciplines on export aids such as direct export subsidies and subsidized export credits, and a better balance of rights and obligations amongst GATT members. Why this is necessary is vividly illustrated by what has happened to the international beef market over the past 20 years.

## Trade barriers

Until the early 1960's international trade in beef was relatively free of distortions. The U.K. had historically been the world's largest importer, drawing supplies from Latin America and Oceania. During the late 1950's the U.S. began to import increasing quantities of frozen "grinding" beef, largely from Oceania. The introduction of the U.S. Meat Import Law in 1964 marked the first indication that beef was heading for the import-sensitive designation. However, the restraint system inherent in the U.S. Meat Import Law did not impact much on international beef trade until the mid-1970's. In 1973 the U.K. joined the EEC and adopted the EEC's variable import levy system. However, at the time the significance of U.K. entry was obscured by the fact that most beef importing countries were relaxing, on a temporary basis, their import restrictions in an effort to attract imports. As you will recall, the rapid build-up in breeding herds in the early 1970's tended to short the market at a time when consumer incomes were expanding rapidly. The realization that the international beef market had changed radically did not occur until the mid-1970's when importing countries faced with rapidly expanding domestic supplies began to restrict imports at a time when beef supplies in the exporting countries were also expanding. The end result was a series of non-tariff distortions. The EEC and Japan imposed virtual import embargoes. The U.S. and Canada also imposed import restrictions, albeit at levels which took into account traditional import volumes. Because the U.S. market was the highest priced, Australia developed an export credit control system whereby an Australian packer had to export 3 pounds of beef to other markets in order to ship 1 pound to the U.S. This resulted in Australian beef being offered in Canada at prices 25 cents per pound lower than that offered to the U.S.

The long and short of it was that the experience of the mid-1970's led Canada to introduce its own Meat Import Law. Thus, today we have a situation whereby the four largest market economy import markets — the U.S., Japan, the EEC and Canada — all have supplementary beef import measures in addition to the basic fixed tariff.

A small step towards reducing some of the distortions which became so apparent in the mid-1970's was taken during the Tokyo Round of GATT negotiations. Each of the four major beef import countries agreed to establish minimum access commitments. These commitments will help to ensure that if there is an over-supply situation in the future the burden of adjustment is spread more evenly between importers and exporters and between importers. Although



some may argue that some minimum access commitments are more liberal than others, the fact remains that a small start has been made in reducing the distortions in international beef trade that provides a solid base on which to build in future negotiations.

Up until the early 1970's any Canadian outlook conference dealing with meats only had to look at one equation. North American supply and demand the Canadian livestock economy operated as an integral part of a North American livestock economy. The rest of the world was largely irrelevant. This is obviously no longer true. A foot and mouth outbreak in Denmark impacts on the Japanese pork market and this is reflected in the price that a Canadian hog farmer receives. A drought in Australia generates larger than expected exports and results in import restraints into the U.S. which impact on how much beef a Canadian boning plant can export to the U.S. The EEC puts a supplementary import levy on pork and Canadian pork exports to Italy dry up. Packing plants in Western Canada have to decide whether its worth making modifications so as to meet the health and sanitary requirements of Germany.

In short, the Canadian livestock economy is increasingly operating in an international environment and decisions taken in Tokyo, Brussels, Wellington and Canberra, as well as in Ottawa and Washington, have to be considered when we gaze into our respective crystal balls to determine what is ahead of us next year. Peering into the longer term, what countries

decide to do in their collective self-interest in Geneva, where the GATT is located, is, I suggest, of more than passing interest to the Canadian livestock economy.

At the recently concluded GATT ministerial meeting, ministers agreed to set in train a 2-year work program to examine the problems of agricultural trade. What is significant is not so much that a working party will examine the problems but that it has been charged with recommending possible solutions. In 2 years time countries will be faced with a decision as to whether to initiate negotiations based on these recommendations. Some will argue that 2 years is too long to wait. Others will argue that the problems of agricultural trade are too intractable and that negotiations which try to deal with the trade effects of domestic agricultural policies will never succeed in 2, 5 or even 20 years. Some will say it will take an agricultural trade war to convince governments that the status quo is not sustainable and that negotiations are not a choice but a necessity. My own view, for what it is worth, is that enlightened self-interest must eventually prevail, and that slowly but incrementally the multilateral agricultural trading system will be improved and strengthened. Changes will not occur overnight; no particular agricultural trade philosophy will "win" at the expense of another. No country will be totally satisfied. However, pragmatism, compromise and common sense must be the order of the day if anarchy is to be avoided.

# Outlook for wheat

Peter Fawcett

This morning I would like to present the current situation and outlook for wheat. My approach will be to outline world highlights and then to analyze the specific supply and demand factors in order to determine a price forecast for the forthcoming year. I will briefly indicate expectation for 1983-84. In similar fashion, I will then present the Canadian wheat outlook with highlights, supply and demand factors and a price forecast.

## World highlights

Increasing world production and carryover stocks, which have produced record supply levels, highlight the world wheat market for 1982-83. Static levels of utilization and trade reflect stabilized demand and result in a 10% increase in ending stocks. Crop year average wheat prices are forecast at 5% under last year.

## Market factors

The level of USSR wheat imports, particularly from the U.S., remains a major uncertainty within the market. Competition between exporting nations for wheat export markets will increase, as exemplified by the U.S. export credit policies and EEC export subsidy programs. The relative strength of the U.S. dollar limits potential increase in exports.

## World wheat forecast 1982-83

### Production

World wheat production for 1982-83 is forecast at 456 Mt, 3 Mt larger than the 1981-82 production estimate.

Total world wheat supply is expected to increase by about 2% to a record 540 Mt, mainly because of increased beginning stocks.

Production in the U.S. is forecast to set a record for the third year in a row of 76.5 Mt, the result of a record yield.

Argentina's wheat production is expected to reach a record of 11.5 Mt, due to larger area planted and favorable weather conditions. As a result of a prolonged drought, the Australian wheat situation has deteriorated to the current production estimate of 8.6 Mt, nearly half of 1981-82 production. Virtually all member countries of the EEC are anticipating

favorable yields, thus increasing production estimates to 59 Mt, a 9% increase over 1981-82, with France projecting the largest increase. Wheat supplies of the five major exporters continue to increase. The 1982-83 total supply may be 4% higher than 1981-82 levels.

Soviet wheat production has stabilized at about 83 Mt, while production in Eastern Europe may increase by 10%.

### Utilization

As can be seen in Appendix 2, world production in the last 2 years has exceeded utilization.

World use of wheat is predicted to increase by about 1% over last year's level, to 448 Mt. The largest increase may occur in the USSR, Eastern Europe and China. Utilization by the major importers is expected to increase by 5%, mainly from domestic availability.

### Trade

World import demand is expected to increase by only 1% in 1982-83; this is significantly lower than the previous 5-year average annual increase of 7.2%.

### Major importers

The USSR is expected to import 18 Mt of wheat, down 1 Mt from last year. The rate of grain shipments during the first 3 months of this crop year (July-September) was less than shipments in the corresponding period in 1981-82. This reduction arises mainly from the lack of new sales by the U.S. and Argentina. The USSR is expected to enter the market later in the crop year.

Imports to Eastern Europe were reduced last year because of a lack of available credit; this situation may deteriorate further, mainly due to economic and political instability in Poland. The growth in wheat exports to developing countries will slow down as economic conditions are limiting purchases.

### Major exporters

As indicated in Appendix 4, increasing trade volume since 1977-78 may level off in 1982-83 and the relative shares of exports have changed, most notably the increasing EEC percentage.

United States, Canada, Australia, Argentina, and the EEC, which normally make up 95% of total exports, are forecast to increase exports by only 1%. In order to maintain its major export commitments, Australia may import for the first time in 15 years up to 1 Mt of wheat. Argentina's increased production will necessitate export movement of grain due to limited storage facilities. Australia's decreased export availability may permit some export replacement, but the limiting factor will be Argentina's inability to extend credit. EEC wheat exports are estimated at a record 16.5 Mt. The USSR and China appear to be the most likely outlets.

U.S. wheat and flour exports are forecast to be at similar levels to last year. Since June the rate of export movement has been slower than last year's rate, mainly because of the absence of shipments to the USSR. It is expected that Soviet wheat purchases from the U.S. will resume; however, the U.S. is attempting to expand its export market.

In the face of increased competition for export markets, the USDA has announced a new blended credit program whereby interest-free direct government export credit will be blended with government-guaranteed private credit to produce lower interest rates. The program authorizes \$U.S. 1.5 billion in blended credit to be spread over 3 years. Other measures may be required as the crop year progresses, as there is little short-run incentive to store grain. The common agricultural policy of the European Economic Community uses a different approach, whereby exports are directly subsidized and financed by import levies. This has caused considerable discussion among exporters with no resolution at the present time.

### **Stocks**

World utilization of wheat in 1982-83 is forecast to be 8 Mt less than production, thereby increasing ending stocks by 10%. Ending stocks as a percentage of utilization increased by 2% to 21%. The largest increase in ending stocks will occur in the U.S., and may account for 60% of stocks held by major exporters.

### **Prices**

The further weakening of North American wheat prices since the beginning of the crop year has been a result of increasing carryover stocks and record production forecasts. The average U.S. farm price for 1982-83 is forecast in the range of U.S. \$125-130/t, 5-7% lower than last year.

The outlook for 1983-84 will be dominated by high stock levels in the U.S. If no factors emerge to decrease supplies the situation will not improve. The acreage reduction programs in the U.S. will show a more determined effort to reduce supplies and support prices. Wheat prices are expected to show a gradual improvement but remain near loan rates in the U.S.

The development of winter wheat in the northern hemisphere regions appears generally good. In Europe seeded areas continue to increase marginally, although net conditions are being experienced in the U.K., France, Italy and Spain. In Eastern Europe, the USSR and China, crop development is slightly later than average due to reduced soil moisture, with areas slightly reduced from last year. In the U.S., seeded area appears similar to previous years, with good crop development. Additional measures may be required to encourage farmers to participate in the acreage reduction program.

## **Canadian wheat highlights**

Canadian wheat production is currently forecast to set a record in 1982-83, 11% above the record production in 1981-82. Total wheat and flour exports set a record in 1981-82 and are forecast to increase by 4% in 1982-83. Increasing world carryover stocks have weakened price prospects; in 1982-83, Canadian crop year average wheat prices are expected to decline by 5% from last year.

## **Canadian wheat forecast 1982-83**

### **Production**

Statistics Canada's most recent forecast of Canadian wheat production for 1982-83 is 27.6 Mt, a record that surpasses the previous record set in 1981-82 by 11%. This includes production of 3.3 Mt of durum wheat. This is the result of a 1.4% increase in area harvested and an average 10% improvement in yield.

Overall crop quality is expected to be reduced by approximately 10% due to early frost, but with high quality carryover from last crop year supplies of all grades are adequate to meet domestic and export requirements.

The Canadian wheat supply is expected to increase by 11.4% to 37 Mt. Domestic utilization may improve to 5.5 Mt due to increased use of wheat for feed. Canadian wheat and flour exports are forecast at 19.2 Mt, including expected exports of 2 Mt of durum wheat.

Ending stocks are forecast to increase by 30% to over 12 Mt, a level not considered burdensome for Canadian storage facilities.

The labor-management dispute that closed West Coast ports during October-November reduced wheat shipments by about 450 000 t. With no further labor-management problems anticipated for the rest of the crop year, this wheat export target of 19.2 Mt is still achievable.

### Price forecast

Record wheat crops in Canada and the U.S., an increasing world supply level, and unchanged de-

mand result in reduced price prospects for Canadian wheat in 1981-82. Prices are forecast to average in the range of \$200-210/t for No. 1 CWRS 13.5% protein wheat at Thunder Bay during the current crop year, 5% lower than last year. Current low price levels are forecast to strengthen in 1983. Durum wheat prices are expected to closely follow this trend. Weak durum prices currently being experienced reflect sustained high levels of durum production in the U.S. and Canada and increased world supplies.

Following the coarse grain and oilseeds presentations, Dr. John Groenewegen will be outlining what we may expect in 1983-84 in terms of a forecast of area sown.

Thank you.

### WORLD WHEAT SUPPLY

|                  | 1980-81     | 1981-82<br>estimated | 1982-83<br>forecast |
|------------------|-------------|----------------------|---------------------|
|                  | (million t) |                      |                     |
| Beginning stocks | 80          | 75                   | 84                  |
| Production       | 439         | 453                  | 456                 |
| Imports          | 94          | 99                   | 100                 |
| Total supply     | 519         | 528                  | 540                 |

### WORLD WHEAT UTILIZATION

|                               | 1980-81     | 1981-82<br>estimated | 1982-83<br>forecast |
|-------------------------------|-------------|----------------------|---------------------|
|                               | (million t) |                      |                     |
| Total supply                  | 519         | 528                  | 540                 |
| Domestic use                  | 444         | 444                  | 448                 |
| Exports                       | 94          | 99                   | 100                 |
| Ending stocks                 | 75          | 84                   | 92                  |
| Ending stocks/<br>utilization | 17          | 19                   | 21                  |

### CANADIAN WHEAT SUPPLY AND UTILIZATION

|                  | 1980-81  | 1981-82<br>estimated | 1982-83<br>forecast |
|------------------|----------|----------------------|---------------------|
|                  | ('000 t) |                      |                     |
| Beginning stocks | 10 721   | 8 570                | 9 565               |
| Production       | 19 292   | 24 803               | 27 620 <sup>1</sup> |
| Imports          | -        | -                    | -                   |
| Total supply     | 30 013   | 33 373               | 37 185              |
| Domestic use     | 5 181    | 5 364                | 5 500               |
| Exports          | 16 262   | 18 443               | 19 200              |
| Ending stocks    | 8 570    | 9 565                | 12 485              |

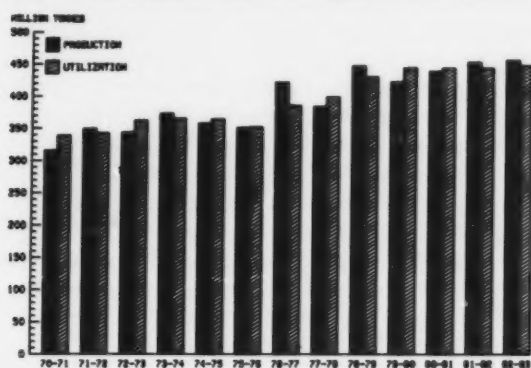
<sup>1</sup> Statistics Canada's latest forecast, released December 3, 1982

### USSR WHEAT SUPPLY AND UTILIZATION

|                  | 1980-81     | 1981-82<br>estimated | 1982-83<br>forecast |
|------------------|-------------|----------------------|---------------------|
|                  | (million t) |                      |                     |
| Beginning stocks | N/A         | N/A                  | N/A                 |
| Production       | 98.2        | 83.0                 | 83.0                |
| Imports          | 16.0        | 19.0                 | 18.0                |
| Total supply     | N/A         | N/A                  | N/A                 |
| Domestic use     | 116.7       | 101.2                | 106.0               |
| Exports          | 0.5         | 0.8                  | 0.5                 |
| Ending stocks    | N/A         | N/A                  | N/A                 |

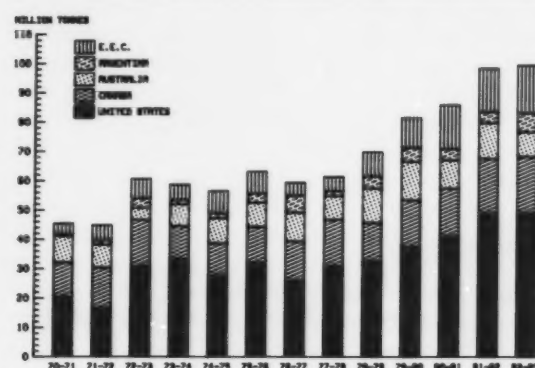


## WORLD WHEAT PRODUCTION AND UTILIZATION, 1970-71 TO 1982-83



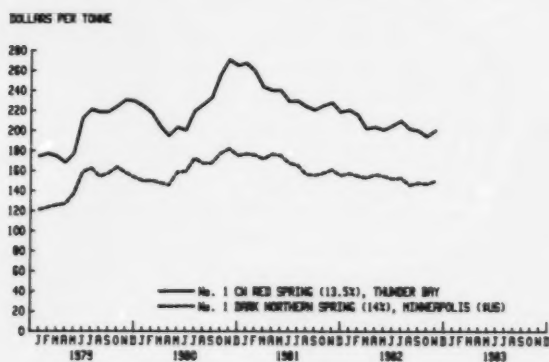
Source: United States Department of Agriculture

## WHEAT EXPORTS, CANADA, ARGENTINA, AUSTRALIA, EEC AND UNITED STATES



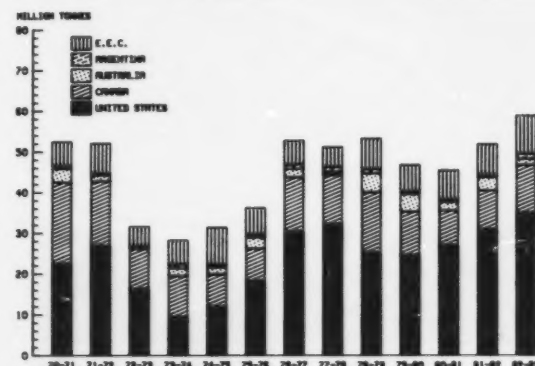
Source: International Wheat Council

## WHEAT PRICES, CANADA AND UNITED STATES, 1979 TO 1983 — FORECAST



Source: Canadian Grain Commission and United States Department of Agriculture

## ENDING WHEAT STOCKS, CANADA, ARGENTINA, AUSTRALIA, EEC AND UNITED STATES



Source: International Wheat Council

# Coarse grains market outlook

A. Daoust

Since August, a wave of pessimism has swept through the coarse grains market, lowering North American prices by more than 20% in the space of 2 months because of a harvest that was too good, particularly in the United States and Canada. It is still true that, for a farmer, good news often comes mixed with bad.

What will happen in the months ahead? It is not my intention today to predict the future, but I am going to try, during the next 15 minutes, to shed a little light on the factors that will play an important role in determining the future direction taken by prices.

Since prices in Canada follow international market prices, we shall start with a brief overview of what is taking place in the world and then focus on the coarse grains surplus situation in the United States. Future price movements will be influenced by certain key factors which I shall touch on briefly. Finally, we shall deal with Canadian prospects.

Let's start, then, with the world outlook.

## Production

World production this year is expected to exceed last year's record by 1%, growing to 783 Mt. In the United States, a second record harvest is expected, while in the USSR, it is anticipated that production will be better than last year.

## Consumption

Consumption of coarse grains decreased in 1981-82. This year, consumption could increase by 2% compared to last year, to reach some 755 Mt. In the fairly long term, increased demand seems to be linked to improvement of the economic situation.

## Stocks and prices

It can be seen, then, that the level of production will exceed consumption by nearly 30 Mt and that stocks will build up accordingly, increasing by 24% to reach 143 Mt.

The major point I want to emphasize is that, to all intents and purposes, the increase in these stocks will end up taking place entirely in the United States, as was the case last year. These huge stocks, of corn particularly, would grow to approximately 104 Mt at the end of the 1982-83 crop year.

These supplies could amount to 47% of total utilization, compared to 35% last year. And going back a few years, we can see that, during the period shown, the price for corn in the United States varied inversely with the change in the ending corn stocks expressed as a percentage of total utilization.

To return to the more recent past, we know that in the United States last August, the increasingly well-founded belief that, on the one hand, corn production would be greater than expected and, on the other, exports and domestic consumption would be reduced rather markedly, made prices fall below the loan level.

Prices dropped to \$80/ton in Chicago in October and, since the beginning of November, some price gains have been noted, which would seem to indicate that producers have found room to store their crop.

However, given the huge volume of stocks, no significant price recovery is expected before this summer. At that time, if there is heavy participation by U.S. producers who are eligible for loans, supplies could become limited and prices could reach \$110/ton on the Chicago market. The average price of corn could thus work out to between \$90-\$100/ton, which would represent a drop of between 6 and 15% compared to last year.

We shall now go over the main factors that might influence the average price level of corn for the crop year within the anticipated price range.

First, let's look at imports of coarse grains by the USSR.

Last year, disastrous harvests meant that the USSR had to import a record 25 Mt of coarse grains, representing one quarter of international trade. This year, production remains poor, although it is estimated to be 12 Mt higher than last year. It is therefore anticipated that the Soviets will reduce their imports of coarse grains to less than 20 Mt; in fact, imports by the USSR might reach only 17 Mt.

A reduction in overall imports by the USSR causes the United States to fear a drop in sales of U.S. corn to the Soviets, since it seems that the USSR will continue to use the same purchasing strategy as last year. It is possible, then, that the Soviets will buy only 3 to 5 Mt of U.S. corn this year.

However, significant changes in the situation of other countries that supply the USSR, particularly Argentina, could alter the picture.

Let us move on now to the United States' credit policy.

The U.S. government has made funds available for the promotion of exports of farm products by granting credit at reduced interest rates directly to certain countries. This program is aimed, in the short term, at countries from outside the Communist bloc which are in financial difficulty. It appears, so far, that the impact of these measures on sales of U.S. corn will be minimal.

My next point concerns interest rates and the exchange rate for the U.S. dollar.

We have seen that, even with the drop in interest rates since the spring, the U.S. dollar has remained very strong against other currencies in general. This appears to reflect greater confidence by investors in the U.S. economy. Changes in the economic outlook that would bring about a devaluation of the U.S. dollar could make U.S. corn more attractive internationally.

My fourth point concerns the increased profitability of livestock production in the United States.

The present price outlook for corn should increase its use by the livestock industry. The USDA forecasts an increase of the order of 2% in the consumption of feed grains by the livestock industry in the United States during 1982-83.

Since the price of pork has risen again from last year's level, pork production has become more profitable. The level to which the swine population is rebuilt and the speed with which it is rebuilt will, over the next few months, be important factors influencing the level of future demand for feed grains.

Let us look now at farming conditions in the countries of the southern hemisphere. Australia has suffered serious drought and it is estimated that its production of coarse grains could shrink by one-third over last year's. South Africa could have a better harvest than last year, in spite of a second consecutive year of drought. In global terms, total production in Australia, Argentina and South Africa is expected to reach a level similar to last year's. However, a reduction in stocks is expected to lower exports from these countries by 3 Mt compared to last year. If harvests in these countries did not turn out to be as good as anticipated, exports from the United States and Canada could exceed projected levels.

Finally, the last key factor: the U.S. acreage reduction program for 1983.

The U.S. government has decided to take stronger measures to encourage the reduction of coarse grain production in 1983.

The program, which is voluntary, involves a 10% acreage reduction and a 10% paid diversion. Upon signing up (October to the end of March, 1983), participating producers would receive half of the diversion payment and, in addition, half of the deficiency payment, covering the difference between the target price and the market price. In the short term, this influx of cash for participating producers could relieve their liquidity problems and possibly improve price levels.

This completes the overview of the key factors that will have an impact on future price movements.

## **Canadian situation**

### **Production**

Generally speaking, this year's yields for all coarse grains have been exceptional. According to the November survey, it is estimated that total production reached 26.6 Mt, an increase of 2% over last year's harvest. Barley production is set at 14.1 Mt, 400 thousand tonnes more than last year. Corn production reached 6.4 Mt, representing a drop of 5% compared to last year's record harvest. However, corn yields in Ontario were higher than expected. As for oats, an increase in harvested area and yields raised production to nearly 3.8 Mt, 18% higher than last year.

Overall, higher beginning stocks and higher production give us total supplies of 32.9 Mt, 1.7 Mt more than last year.

Domestic consumption of coarse grains should increase. The present price outlook will encourage greater use of coarse grains as livestock feed. As in the United States, the price situation for pork should encourage rebuilding of breeding herds.

Moreover, Canadian exports are expected to total 7.6 Mt, thus creating a build-up in stocks, which could reach approximately 7.2 Mt.

Let us look at the composition of Canadian exports in a little more detail.

Barley exports are expected to equal last year's level of 6 Mt. To date, barley exports from Canada are at the same level as at the same time last year. For the year 1982-83 as a whole, total purchases of barley by the USSR should approach the level reached last year (2.8 Mt). But while Canada may succeed in taking over part of the market which Australia cannot supply, sales to Italy may well decrease due to good harvests in the EEC countries. Another factor to be considered is the change in the economic climate of Eastern Europe where, among other things, Poland, which was a traditional market for Canada, did not import any barley last year because of credit problems.

As for corn, it is estimated that exports this year will reach about 1 Mt, which is 300 thousand tonnes less than last year. Last year, the Soviet Union and Cuba were about the only two customers Canada had. To date this year, it appears that other countries, including Spain and Iran, may be interested in Canadian corn.

Overall in 1982-83, the average price for barley (Off-Board) should be between \$100 and \$110/t, which represents a drop of between 12 and 19% compared to last year. The average price for corn at Chatham should be at the same level (\$100-\$110/t), a drop of from 4-12%. This relatively smaller drop stems from the fact that, in 1981-82, the price of Ontario corn was lower at a certain point because of the local surplus. In the case of oats, the price is forecast at between \$90-\$100/t, a decrease of the order of 20%.

In conclusion, 1982-83 stands out as a second consecutive year of over-production. Stocks will build even more, and the resulting surpluses will end up, for all practical purposes, in the United States alone, which is presently creating downward pressure on the price for U.S. corn. This situation directly affects prices for Canadian coarse grains. Certain factors will influence future price movements: imports by the USSR; United States credit policy; interest rates and the exchange rate for the U.S. dollar; profitability of livestock production; production of southern hemisphere countries; U.S. acreage reduction program for 1983.

For the year 1983-84, the area sown to corn in the United States will be the main factor influencing price levels.

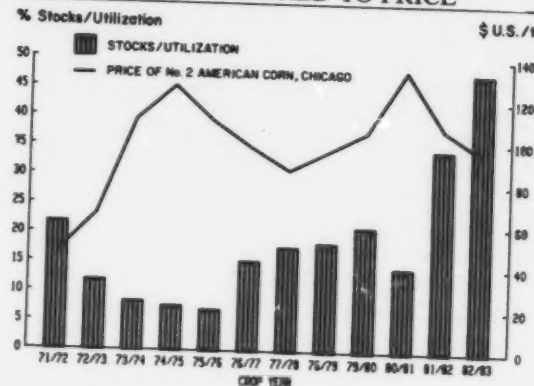
## PRODUCTION OF CANADIAN COARSE GRAINS

|        | 1982 |      |
|--------|------|------|
|        | Mt   | %    |
| Total  | 26.6 | + 2  |
| Barley | 14.1 | + 2  |
| Corn   | 6.4  | - 5  |
| Oats   | 3.8  | + 18 |

## CANADIAN COARSE GRAINS

|        | Average price |         |
|--------|---------------|---------|
|        | 1981-82       | 1982-83 |
|        | (\$/t)        |         |
| Barley | 124           | 100-110 |
| Corn   | 114           | 100-110 |
| Oats   | 121           | 90-100  |

FIGURE 1. U.S. CORN STOCKS AS % OF UTILIZATION COMPARED TO PRICE



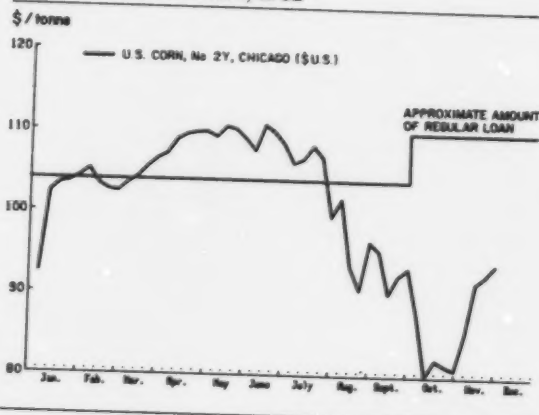
## WORLD SUPPLY AND DISPOSITION: 1982-83

|             | Mt  | %    |
|-------------|-----|------|
| Production  | 783 | + 1  |
| Consumption | 755 | + 2  |
| Stocks      | 143 | + 24 |

## SUPPLY AND DISPOSITION OF CANADIAN COARSE GRAINS (Mt)

|                      | 1981-82 | 1982-83 |
|----------------------|---------|---------|
| Beginning stocks     | 4.3     | 5.3     |
| Production           | 26.0    | 26.6    |
| Imports              | 0.9     | 1.0     |
| Total supplies       | 31.2    | 32.9    |
| Domestic utilization | 18.0    | 18.1    |
| Exports              | 7.9     | 7.6     |
| Ending stocks        | 5.3     | 7.2     |

FIGURE 2. AVERAGE WEEKLY CASH PRICES FOR CORN, 1982





# Oilseed outlook

Hans Duncker

First of all I should like to share with you an analysis of world market prices of oilseed products and then, against this analytical background, to review prices, supply and utilization of Canadian oilseeds.

Understanding the behavior of world market prices is important because they determine, to a large extent, prices of Canadian oilseeds. For oilseeds, Canadian farmers do mainly their own marketing.

Oilseeds are packages of oil and meal with different proportions for different oilseeds, which is sometimes confusing. Oils and meals are very different physically, and serve very different markets. Instead of discussing oilseeds directly, we will analyze as much as possible price behavior of oils and meals separately.

Let us look at the recent past (Table 1). Prices are a result of supply and demand, therefore, we look at supply first. For the last crop year, 1981-82, world supplies of oils and meals increased after drought reduced levels in 1980-81. World meal production increased by about 8% and world edible oil production by about 6%. The increase, both for oils and meals, was mainly due to an increase of the U.S. soybean crop in 1981. For the present crop year, meal supplies are estimated to increase by about 9% and edible oil supplies by close to 8%. Again, this has been mainly due to an increase of the U.S. soybean crop in 1982, because soybeans are for 80% meal. World meal supplies increased more than world oil supplies, notwithstanding the fact that edible oil production increased outside the U.S., particularly palm oil production in Malaysia and rapeseed production in Western Europe.

TABLE 1. INCREASE OF WORLD PRODUCTION, PERCENT

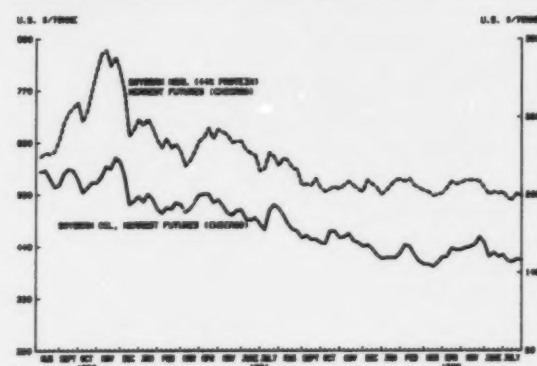
|                    | 1980-81 | 1981-82 | 1982-83 |
|--------------------|---------|---------|---------|
| Edible oils        | - 5     | +6      | +8      |
| High protein meals | -11     | +8      | +9      |

On the demand side world utilization is not so easy to depict, but we know that the recession has affected real income and therefore utilization of both oils and meals.

About this time 2 years ago, the recession started with tightening of U.S. money supply with resulting increasing interest rates. This recession has deepened.

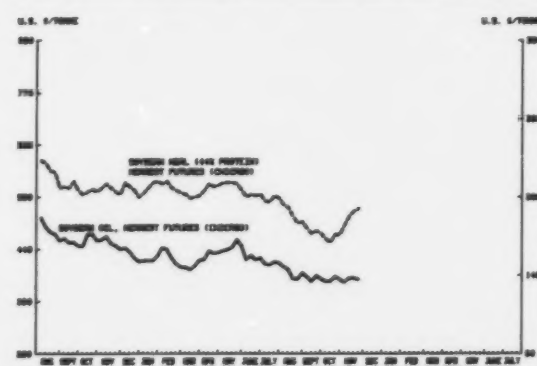
Therefore, with increasing supplies and rather stagnating demand it is (Chart 1) not surprising that price decline has been spectacular. In addition, there have been an increased U.S. exchange rate, rising energy prices and trouble in Eastern Europe. During the early months of 1982, prices stabilized to some extent. This was mainly due to a shortfall of the Brazilian soybean crop.

CHART 1. WEEKLY AVERAGE SOYBEAN OIL AND MEAL PRICES, 1980-82



After May 1982, the price declines resumed as prospects for a record 1982 U.S. soybean crop increased (Chart 2) and production of Malaysian palm oil and European rapeseed increased strongly.

CHART 2. WEEKLY AVERAGE SOYBEAN OIL AND MEAL PRICES, 1981-83



The recent price increase of soybean meal is mainly a result of increased stockholding of soybeans made less expensive by declining interest rates in the U.S.

For the remainder of the present crop year, I believe that prices will not increase much, notwithstanding the very low price levels. Supply, both of oils and meals, will not increase much more but demand is not expected to increase either, since economic conditions may not improve before the summer of 1983.

What about next crop year, 1983-84? On the supply side, 1983 U.S. soybean plantings might increase again as the soybean/corn price ratio is expected to be in favor of soybean growing in the spring of 1983. Other oilseed supplies are expected to increase moderately. On the demand side, world economic conditions are expected to improve slowly during 1983-84. A moderate price increase is forecast for 1983-84.

Beyond next crop year, 1983-84, I believe as I have for some time now, that prices for edible oils will show a tendency to be depressed. One important reason is continuing supply pressure. Palm oil, coconut oil and rapeseed oil, in particular, have significant growth potential both in yield and area; meal supplies, as they are mainly dependent on soybean growing, may not increase so readily. Time does not permit me to go deeper into this.

Let us turn now to the Canadian scene (Charts 3 and 4). In tune with world market prices, Canadian oilseed prices have also tended to decrease, but less for canola seed than for soybeans. For canola seed, the important reason behind this has been the tight supply situation first in 1981-82 and even more in 1982-83. (Chart 5). There has been considerable anxiety about this supply tightness which is reflected in small carryover stocks. This tightness, I think, has not been altogether an accident.

I think that the introduction of the new canola varieties in the mid-seventies and improved exports increased expectations too much and over-stimulated the growth both of crushing capacity and canola production.

Production was further stimulated by strongly increased exports during 1978-79 which were a result of a strongly decreased exchange rate of the Canadian dollar against major currencies, which made canola-rapeseed relatively cheap in export markets. However, utilization lagged behind, resulting in burdensome stocks. During 1979-80 stocks would have been even higher if yields had not been below average in 1979 and if there had not been a significant shortfall of rapeseed production in the EEC which increased Canadian exports to that area.

CHART 3. WEEKLY AVERAGE OILSEED PRICES, 1980-82

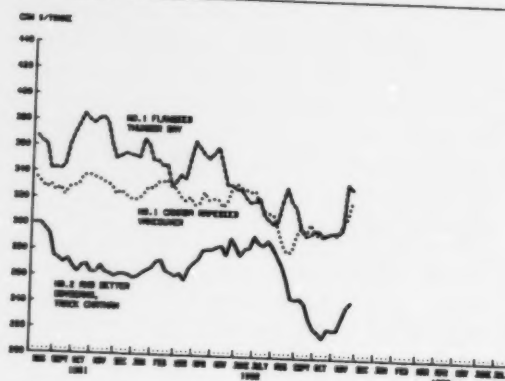


CHART 4. WEEKLY AVERAGE OILSEED PRICES, 1981-83

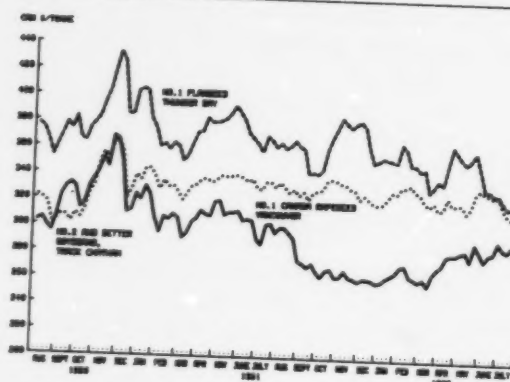
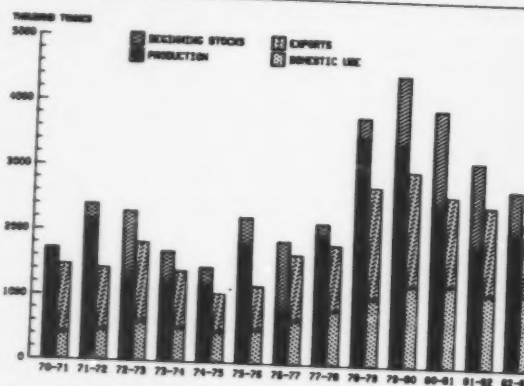


CHART 5. RAPESEED SUPPLY AND DISAPPEARANCE, CANADA



Source: Statistics Canada

The burdensome stocks, partly because of falling exports, weakening rapeseed prices, an increasing exchange rate, the rotation problem and the deepening recession, have been the main causes of the reduction in area and production. This, as we all know, reached the point of supply tightness in 1981-82, a situation further aggravated by a killer frost in August 1982 that led to extreme tightness in 1982-83.

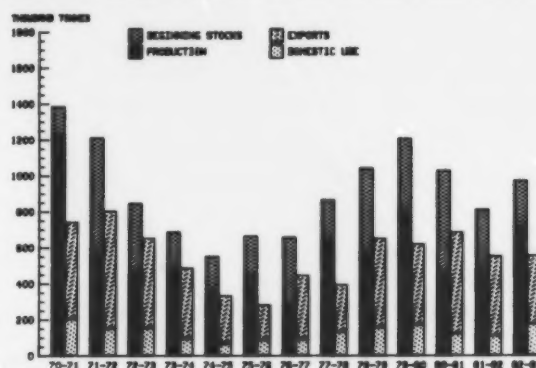
From a farmer's point of view, relatively high canola prices and tight supplies are commercially not unsound, particularly not in times of profit squeeze and high interest rates. However, from this same commercial point of view it would seem sound to increase canola area in 1983.

The rapeseed-barley price ratio will be probably in favor of canola growing at planting time in 1983. Quotas are and will be ample during this crop year and the next. These factors will be discussed in more detail by the next speaker.

A few words about the other oilseeds.

Flaxseed supplies (Chart 6) are not tight anymore because of increased production. Exports decreased, because of a production increase in Argentina and the United States and because the recession has affected the demand for industrial oils. Flaxseed utilization in 1982-83 will probably decline further from last year's reduced level. Flaxseed prices have decreased significantly during the last 12 months and 1983 flaxseed area will probably decrease, which will also be discussed by the next speaker. Some price increase is expected for 1983-84.

CHART 6. FLAXSEED SUPPLY AND DISAPPEARANCE, CANADA



Source: Statistics Canada

For soybeans, the soybean/corn price ratio might, as indicated, still be in favor of soybean growing in the spring of 1983 and production outside the traditional area might increase. Winterkill in the 1982 wheat area shifted significant area to soybeans in 1982 which should not be repeated. Therefore, 1983 soybean area might not be as high as in 1982. Some modest price increase is expected in 1983-84, in line with world market prices.

Sunflower seed area decreased in 1982 and little change is expected for 1983.

## 1983 acreage forecast

*Dr. John Groenewegen*

Good morning ladies and gentlemen. You have just heard our 1983 outlook for wheat, coarse grains and oilseeds in Canada. An important question that has not yet been addressed today is: "What is the outlook for next crop year's acreage?" First, I will indicate which factors are expected to influence this. Most of these factors are price related. Based on our forecasts of the appropriate prices, I will then present our forecast of crop acreage for 1983.

Let us turn to the factors affecting acreage. Acreage shifts between crop years are usually influenced by perceived changes in profitability between crops. The best measure of expected profitability when planting decisions are made is actual market prices in that period. Therefore, as the price of soybeans as a ratio of corn prices increases, some producers will shift acreage out of corn into additional soybeans.

Farm stocks of wheat and barley in Western Canada also affect planted acreage since C.W.B. pooled prices reflect only demand conditions. Farm stocks reflect supply conditions as higher farm stocks mean excessive supplies relative to demand. Thus, for example, when wheat stocks become excessive, producers may shift some acreage into other crops to maximize possible delivery opportunities into the primary elevator system.

A model was developed at Agriculture Canada to forecast prairie crop acreage. This econometric model takes total acreage planted to the five major crops as fixed. Then, based on price relationships between these crops that are expected for the 1982-83 crop year and also based on expected wheat and barley farm stocks, a share of this total acreage is allocated to each crop. Our acreage forecasts are based on the outcome of this model and analyses by our grains and oilseeds market analysts.

The 1982-83 crop year price forecasts are the basis for the acreage forecasts. These price forecasts, as a percent change from the 1981-82 crop year average are summarized on this next overhead. The total Canadian Wheat Board payments for the 1981-82 crop year which is known in January is expected to be down around 7% from 1980-81 levels. Open market barley prices for 1982-83 are forecast to be around 15% below last year's average.

The average oat price for this year is expected to fall 20% from last year's level.

The price of rye is forecast to fall 15%.

The price of corn is expected to be 10% under the 1981-82 acreage.

In the oilseed complex, the rapeseed price is anticipated to be 5% under last year's price.

Flaxseed prices for 1982-83 are forecast to be 10% under last year's levels.

The soybean price this year is forecast to average around 12% below last year's level.

In western Canada, farm stocks are expected to be about 15% higher for wheat and around 8% higher for barley.

A change in the price of barley, for example, affects not only its own acreage, but also the acreage of other crops. Our acreage model suggests that with the 15% decline in barley prices, barley acreage should decline by 12% while the acreage for the other crops should increase by 4%. Similarly, with the expected 20% decline in the oats price, oats acreage should fall by 30% and all other crops increase by 2%.

The expected 5% decline in rapeseed prices should result in a 5% reduction in rapeseed acreage and 1% increase in the acreage for other crops.

Also, a 15% increase in farm wheat stocks has been estimated to reduce wheat acreage by around 0.5% and increase the acreage of all other crops by 0.8%.

The cumulative affect on acreages of all of these changes in factors and how they affect acreage planted to crops is reported on the next overhead. With wheat acreage we expect plantings to increase to a record 32 million acres, up 3% over the harvested 1982 acreage of 31.1 million acres. This increase stems mostly from feed grain prices on the prairies falling much more than wheat prices and from the increase in Ontario winter wheat acreage.

Barley acreage for grain is forecast to be down 7% to 11.9 million acres (under 11 million harvested on the prairies) because of substantially lower feed grain prices. This compares with 1982 harvested acreage of 12.8 million acres and 1981 acreage of 13.5 million.

Similarly, oat acreage for grain is expected to be down 15% to 3.5 million acres.

Rye acreage is expected to decline just marginally to 1.1 million acres.

Corn acreage is expected to decline again in 1983 by 5% to 2.6 million acres. This decline occurs because of expected cutbacks in Manitoba corn and more favorable soybean and wheat returns in Ontario relative to corn.

Rapeseed acreage is expected to be up 14% to 4.9 million acres from 4.24 in 1982 and 3.6 in 1981 acres, despite the expected 5% drop in rapeseed prices. This increase reflects the much more favorable rapeseed/barley price ratio and this occurs because the decrease in rapeseed prices is expected to be much less than the drop in feed grain prices on the Prairies.



Flaxseed acreage will decrease by 13% to 1.4 million acres.

Soybean acreage is expected to decrease by 11% to 800 thousand acres. An increase is not expected since up to 150 thousand acres of additional soybean were planted in Ontario in 1982 as a result of the severe winterkill of Ontario wheat. The 1982 plantings without the winterkill would likely have been under 800 thousand acres. Thus our forecast of 800 thousand is an increase over what would have been trend acreage in 1982.

With this forecast total, acreage harvested plus these acreage forecasts imply that 58.3 million acres or 23.6 million hectares will be planted to the crops listed, down under 1% from year-ago levels. No increase is anticipated because of the lower crop returns versus forage pasture returns, through the livestock sector.

In summary, the major changes we expect in 1983 acreage relative to 1982 acreage are: first, wheat acreage up 3% to 32 million acres; second, barley acreage from 7% to just under 12 million acres; corn

acreage down 5% to 2.6 million acres, and rapeseed acreage up 14% to 4.9 million acres. These shifts in acreage reflect the changes in relative prices expected for 1982-83, with oilseed and wheat prices appearing to be more favorable than feed grain prices.

I hope that this discussion on 1983 acreage forecasts has assisted you, whatever your involvement with the important grains and oilseed sector in Canada.

Thank you.

#### ISOLATED IMPACTS ON PRAIRIE ACREAGE CAUSED BY OF CHANGES IN FACTORS

| Factor            | Percent change | Isolated impacts (percent) |               |
|-------------------|----------------|----------------------------|---------------|
|                   |                | Own acreage                | Other acreage |
| Barley price      | - 15           | - 12                       | + 4           |
| Oat price         | - 20           | - 30                       | + 2           |
| Rapeseed price    | - 5            | - 5                        | + 1           |
| Farm wheat stocks | + 15           | - .5                       | + .8          |

#### FACTORS AFFECTING 1983 ACREAGE

| Factor                            | Year-over-year percent change |
|-----------------------------------|-------------------------------|
| <i>Prices</i>                     |                               |
| Total Wheat Pool payments 1981-82 | - 7                           |
| Initial wheat payments 1982-83    | 0                             |
| Barley price                      | - 15                          |
| Oats price                        | - 20                          |
| Rye price                         | - 15                          |
| Rapeseed price                    | - 5                           |
| Flaxseed price                    | - 10                          |
| Soybean price                     | - 12                          |
| Corn price                        | - 10                          |
| <i>Stocks</i>                     |                               |
| Farm wheat stocks                 | + 15                          |
| Farm barley stocks                | + 8                           |

#### CROP ACREAGE IN CANADA

|          | 1983 forecast |                  | Percent change from 1982 |
|----------|---------------|------------------|--------------------------|
|          | Million acres | Million hectares |                          |
| Wheat    | 32.1          | 13.0             | + 3                      |
| Barley   | 11.9          | 4.8              | - 7                      |
| Oats     | 3.5           | 1.4              | - 15                     |
| Rye      | 1.1           | 0.4              | - 3                      |
| Corn     | 2.6           | 1.1              | - 5                      |
| Rapeseed | 4.9           | 2.0              | + 14                     |
| Flaxseed | 1.4           | 0.5              | - 13                     |
| Soybeans | 0.8           | 0.3              | - 11                     |
| Total    | 58.3          | 23.6             | - 1                      |

# An overview of world and Canadian grain trade trends

S. Weedle

Mr. Chairman, ladies and gentlemen:

Market development is the theme of this year's Outlook Conference, and in the grain industry, market development refers to the expansion of our international markets.

During the next 10 minutes, I intend to provide a brief overview of past trends in world exports and imports of grain, paying particular attention to Canada's growing market areas. For those already familiar with the topic this should simply serve as a review; for others it ought to provide some important and interesting background information. For all of us it will set the stage for a discussion of future trade prospects which will be presented in the two following papers.

Examining world trade over the past two decades we see that wheat trade more than doubled from 42 Mt in 1960-61 to 100 Mt forecast in 1982-83. Simultaneously world trade in coarse grains increased from 24 Mt in 1960-61 to 103 Mt this year. It is worthwhile to note that the growth in world wheat trade has been steady relative to coarse grains, and in fact has continued to increase while over the last 2 years coarse grain trade has declined.

As well as a shift in the volume of grain exports, significant structural changes occurred during recent decades. Since the early 1950's, several regions which had accounted for a sizeable share of the grain export market, such as parts of Northern Africa, the Middle East, Eastern Europe and South America, became net importers. At the same time, there was an increasing level of export market concentration to the extent that presently Argentina, Australia, the European Economic Community, Canada and the United States are known as the five major exporters. Together they dominate approximately 95% of all wheat exports, the latter two alone accounting for over 65%. The coarse grain export market is even more concentrated, with the United States holding almost 70% of total world shares.

## The exporters

Looking in some detail at the changes in wheat exports from 1955 to 1980, we see that Argentina's exports have fluctuated from 3 Mt to a high of 8 Mt in 1965, finally reaching 4 Mt in 1980. Australian wheat exports showed a moderate but steady growth from 3 to 10 Mt, while those of Canada doubled from 8 to 16 Mt. The EEC expanded from 3 to 15 Mt, and American levels more than quadrupled from 9 Mt to 41 Mt during these 25 years.

Examining the five major exporters' changing shares in coarse grain trade, we see moderate growth in Argentina, Australia, Canada and the EEC and an almost exponential increase in U.S. export levels from 6 Mt in 1955 to 70 Mt in 1980, due mainly to a tremendous expansion of U.S. corn production and thus export availability.

Although the United States has consistently dominated the scenario, Canada's importance in the coarse grain market lies in the fact that we are the largest barley exporter in the world, followed closely by the EEC and Australia. Although barley and corn are close substitutes, they are in fact two distinct commodities, each possessing its own characteristics and feed or food uses.

## The importers

During the past two decades we have seen some significant changes in the characteristics of the grain importing nations and in the level of market concentration.

The number of importing countries has expanded since the early 1950's when Western Europe accounted for the majority of grain imports; today there are about 200 importers. Simultaneously there has been an increasing level of import market concentration. Currently China, Japan and the USSR account for about 40% of total world grain imports, and when the EEC and Eastern Europe are added to this list, they make up almost 60% of the market.

Looking at the changing characteristics of the grain importing nations, in general there has been a decline in the share of imports by the developed nations, and an increasing trend in both the centrally planned economies and the developing countries. The developed countries' share of world grain imports dropped from 57% in 1961 to the present 27% due in part to higher levels of wheat self-sufficiency in Western Europe and to the increased use of levy-free cassava and other grain substitutes as feed extenders in the EEC. Total grain imports by the developing nations grew from 18 Mt in 1961 to 75 Mt in 1980—representing about 40% of the market. The major increase occurred in the middle-income developing countries including Egypt, South Korea, Taiwan, Mexico, Brazil and some of the Gulf countries. The centrally planned economies, which include the Soviet Union, Eastern Europe and the people's republic of China, imported 13 Mt of grain in 1961, 18 Mt in 1970, and over 60 Mt in 1980, which representing over 30% of total grain trade.

## Canada's role

To better understand Canada's role in grain export let us focus upon the import markets which our country has been developing during the past 20 years. By examining the changes in terms of 5-year averages we highlight the long-term trends rather than the year to year fluctuations.

Canadian wheat exports to the EEC have decreased by 44%, due in part to advances in Community grain production and more importantly, to the accession of new member states in the early 70's. In contrast, Canadian wheat purchases by Eastern Europe more than doubled — imports by Poland and the USSR were the major factors affecting this strengthened demand.

Africa's imports of Canadian wheat increased from about 100 to 1100 thousand tonnes during the past two decades, the largest sales going to Algeria, while Ghana, Morocco and Tunisia became more active importers during the 70's. Exports to the Middle East rose just as dramatically from 44 thousand tonnes to over 500 thousand, the largest jump occurring in the early 70's. Asian imports rose during the first three periods examined and declined during the latter part of the 70's, reflecting some amazing production developments such as India's achievement of virtual self-sufficiency in grain production.

Exports to the Western hemisphere grew six-fold from 364 to 1763 thousand tonnes during the past 20 years, the largest increases going to Brazil and Cuba. In total, Canadian wheat exports expanded from 10 to 17.4 Mt during the past two decades.

Canada's coarse grain exports have risen even more sharply than those of wheat, from an average 0.8 Mt from 1960 through 1965 to 4.5 Mt during the 1980 to 1982 period. Although our corn sales have increased significantly in recent years, barley has traditionally made up the majority of Canada's coarse grain exports.

Looking at our barley exports by 5-year averages over the past two decades, there has been expansion

in every market into the 70's, with later downturns occurring in purchases by the EEC, and more recently by Africa and the Middle East. Substantial growth is seen in our exports to Eastern Europe, while sales to Asia and the Western Hemisphere show a steady but slightly moderated expansion.

## Recent developments

During the 60's and early 70's, world production and consumption were the key factors affecting grain trade levels. More recently however, the international economic situation has gained increasing importance. With gross national indebtedness running at around U.S. \$90 billion in the Eastern bloc and \$660 billion in the Third World, the difficulties faced by many nations in financing their grain import requirements has recently had and may continue to have a depressing effect on world demand. This in turn is reflected in the growing competitiveness among exporters, meaning that the domestic and trade policies of the exporting nations have also become an increasingly important factor in the world grain market.

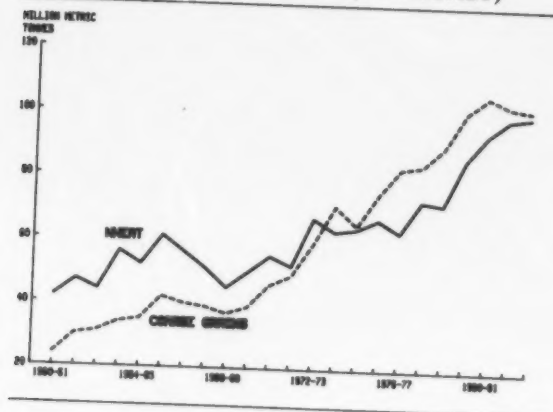
## Conclusions

To conclude this brief overview of world and Canadian grain trade trends, let me simply recapitulate:

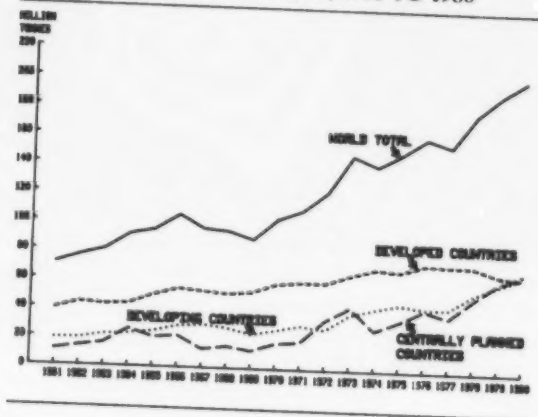
- World trade in wheat has grown steadily, while trade in coarse grains expanded rapidly through the 70's and has shown some decline in the 80's.
- Market concentration of both the importing and exporting nations has been increasing.
- There has been a shift in the major importers of world and Canadian grain from the developed to the centrally planned and middle to upper income level developing countries.
- The world economic situation and changing export policies have been, and may continue to be, key factors influencing world grain trade.

Thank you.

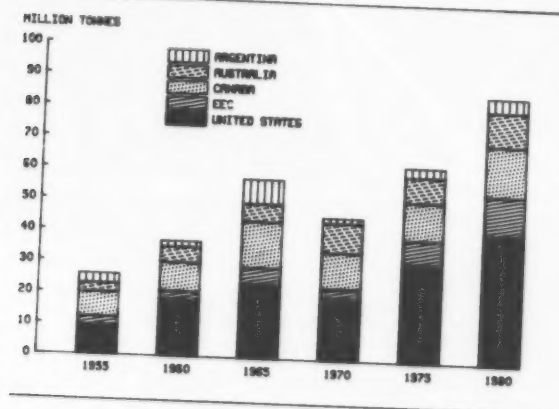
## WORLD TRADE IN WHEAT AND COARSE GRAINS, 1960-61 TO 1982-83 (FORECAST)



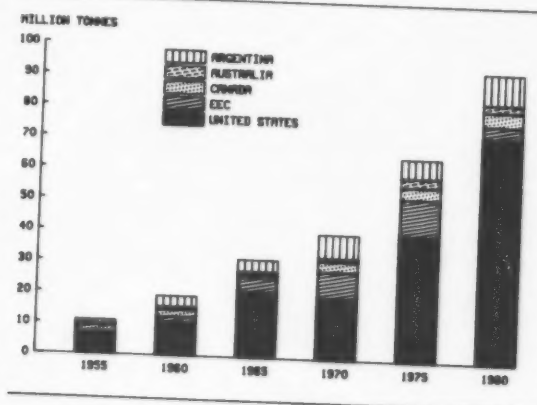
## WORLD GRAIN IMPORTS, 1961 TO 1980



## WORLD WHEAT EXPORTS



## WORLD COARSE GRAIN EXPORTS





# CANADIAN WHEAT EXPORTS TO SELECTED REGIONS

|                    | 5-year average           |                          |                          |                          | 2-year average           |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                    | 1960-61<br>to<br>1964-65 | 1965-66<br>to<br>1969-70 | 1970-71<br>to<br>1974-75 | 1975-76<br>to<br>1979-80 | 1980-81<br>to<br>1981-82 |
|                    | ('000 tonnes)            |                          |                          |                          |                          |
| EEC                | 3 803                    | 2 954                    | 2 565                    | 2 334                    | 2 126                    |
| Eastern Europe     | 2 189                    | 2 631                    | 1 967                    | 3 167                    | 5 918                    |
| Africa             | 101                      | 150                      | 610                      | 774                      | 1 137                    |
| Middle East        | 44                       | 28                       | 462                      | 586                      | 545                      |
| Asia               | 3 066                    | 4 107                    | 5 165                    | 4 564                    | 4 681                    |
| Western Hemisphere | 364                      | 370                      | 1 098                    | 1 763                    | 2 186                    |
| Total              | 9 966                    | 9 034                    | 12 078                   | 13 422                   | 17 350                   |

# CANADIAN BARLEY EXPORTS TO SELECTED REGIONS

|                    | 5-year average           |                          |                          |                          | 2-year average           |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                    | 1960-61<br>to<br>1964-65 | 1965-66<br>to<br>1969-70 | 1970-71<br>to<br>1974-75 | 1975-76<br>to<br>1979-80 | 1980-81<br>to<br>1981-82 |
|                    | ('000 tonnes)            |                          |                          |                          |                          |
| EEC                | 201                      | 473                      | 1409                     | 937                      | 448                      |
| Eastern Europe     | 13                       | 24                       | 600                      | 1067                     | 2302                     |
| Africa             | -                        | 4                        | 38                       | 91                       | 20                       |
| Middle East        | 3                        | 66                       | 307                      | 427                      | 259                      |
| Asia               | 311                      | 219                      | 767                      | 879                      | 979                      |
| Western Hemisphere | 179                      | 162                      | 293                      | 280                      | 297                      |
| Total              | 825                      | 1100                     | 3663                     | 3948                     | 4479                     |

# Trade prospects for centrally planned economies

Georgina Vitonova

I would like, in this presentation, to discuss the role of the centrally planned economies in the international market and the main factors behind the changing pattern of their grain imports. I would like to conclude with how I see the grain trade development of those economies in the 80's. But first let me make a brief comment on grain trade in general and on some measures and factors influencing grain trade.

## International grain trade

The grain purchases of the centrally planned economies, mainly of the USSR, have always received more publicity than the other importers. This is only natural given the volume of imported grain and given the size of the aggregate grain production. The centrally planned economies, which include the USSR, the people's republic of China and seven Eastern European countries, (Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania and Yugoslavia) — have over 30% of the world population and a fifth of the world gross national product. It is estimated that recently these economies consumed 40% of the world's grain and produced over 35%. Therefore their influence on the international market is indisputable. However, it seems to be quite disputable that those countries are the main causes of the market instability.

The instability and the uncertainty of the international agricultural market, of which grain trade is one of the largest components, result from factors which are natural (climate), economic and political. But because of the impact of the weather and economic and policy factors on harvest, production can vary considerably from year to year, both in the main importing countries and the exporting countries.

Individual countries react to the problems created by this situation in many different ways. Most try to become as self-sufficient as they can, by increasing production or reducing consumption or by controlling imports. On the export side, exporters encourage domestic production, subsidize exports or may tend to limit their exports in time of short supplies, to protect domestic consumers.

A clear relationship exists between domestic policy, in some cases foreign policy, and international trade stability. Domestic policy measures, even those not seen in the context of trade, sometimes lead to setting up of trade barriers and to disruptive effects on trade. The recent development would seem to support a concern of growing instability on the international market due to the impact of those policies.

## Changing role of the centrally planned economies during the 70's

Until 1960, the centrally planned economies were self-sufficient in grains and were exporters of agricultural products. The Soviet Union was seen as a major export competitor in wheat and China as an important competitor in oilseeds. At the beginning of the 70's the net grain imports of all countries accounted for only 6.5% of the world grain imports. By the end of the decade, however, this share of world market exceeded 30%. Actually, the centrally planned economies accounted for more than 50% of the increase in world grain trade between 1970 and 1980. The increasing dependence upon the rest of the world for grain has not been unified among the countries. Almost all increase in grain import has been due to four countries — the USSR, Poland, GDR and China.

Why has this dramatic shift in the agricultural and food trading pattern occurred? There are no easy and simple explanations for this phenomenon. The countries have undergone many political, economic and structural changes since the establishment of the socialistic system. The overall performance of their economies was favorable in most of the countries until the end of the 1960's. However, the economic growth was uneven and there was a considerable disproportion in growth among the economic sectors. The agriculture and food industry was among those sectors lagging behind the rest of the economies. Moreover, the economic development was accompanied by a significant growth in per capita in both money and real terms.

Several factors, however, have been responsible for the rapid growth of grain imports by the centrally planned economies during the 70's and did not operate with equal strength in the USSR, China and Eastern Europe. The three most important factors have been the rapid growth of demand for meat and livestock products in the USSR and Eastern Europe, the introduction of substantial food price subsidies and the slow growth of agricultural production, especially in the USSR and Poland. In China the major source of increased demand for grain has been new policies adopted in 1977 and 1978 (calling for improved economic conditions and more liberal foreign trades).

The growth in the demand for livestock products in the USSR and Eastern Europe was the result of a significant rate of growth of per capita incomes and relatively high income elasticities of demand. In addition, the limited supplies of quality consumer food and shortage of housing have shifted demand toward meat and other livestock products. The growth in demand for meat has been also augmented by the food price subsidies. While producer, and in some cases input, prices were raised periodically, food prices such as those for meat, milk, bread and sugar remained unchanged for many years. As a result, the government subsidies in many cases equaled the actual retail price. The failure to adjust retail food prices to the level required by the prices paid to farms has meant that the real price of food had declined over the past decade.

Rising demands for meat consumption put pressure on the government to stimulate meat production. Although the East European countries achieved a remarkable increase in grain production, a favorable livestock-feed grain ratio resulted in a faster growth in the livestock than the crop sector. The unbalanced growth led to widening the gap between the domestic grain requirement and grain supply.

Improved diet and self-sufficiency in food, particularly of grain, has been a long-standing objective of the centrally planned economies. While Eastern European countries were quite successful in improving the diet of their population — as for instance meat consumption increased during the 70's by about one-fourth — the rate of grain self-sufficiency has not changed (90% in the 60's and 90% at the end of the 70's). To a considerable degree, therefore, the expansion of meat and livestock products was achieved by increasing imports of grain and other feed from hard currency countries.

The Soviet Union, in contrast to the Eastern European countries, failed to achieve a significant growth in per capita meat consumption. In fact, in 1980 per capita meat consumption was the same as in 1975, which in turn was only 10% above the 1970 level.

The improvement of the Soviet diet was modest indeed, given the efforts made to increase such production, and the rate of grain self-sufficiency even declined. The USSR imported over 100 million tonnes during 1975-80, but due to a short supply of grain and other feeds from domestic sources, grain imports were used more for maintaining livestock numbers, rather than for expansion of livestock production.

Contrary to their credit policies in the 60's, the East European governments turned to western bankers for credit and to western exporters for financing agricultural commodity imports. By 1980, the six East European countries accumulated large foreign debts estimated at \$67 billion as compared with \$8 billion in 1970.

The USSR and China, despite the substantial growth of grain imports, were able to control reasonably well their financial situation. Recently the USSR has been experiencing a short-term squeeze on its hard currency reserves; however, a net external debt estimated currently at about \$10 billion is not considered as serious, when measured in relation to export earnings and the resources of the country's economy.

## **Development of grain trade in the 1980's**

With growing economic and financial difficulties, grain imports and food subsidies have become a burden on the economy and have forced the governments to adjust their agricultural and food policies.

As a growing and significant increase in agricultural production is difficult to achieve, the only solution most countries recognize as holding promise for achieving a food balance and self-sufficiency in the shortest possible time is an adjustment in food demand and consumption through increased food prices, reduced meat consumption and restricted grain imports. Czechoslovakia, the German Democratic Republic, Poland and Romania are among the countries that recognized the restriction of austerity and deliberately slower economic growth as the main policy changes.

The USSR has responded to its agricultural problem in a somewhat different way, with continued emphasis on increased agricultural production by setting high targets, increased capital investment, higher procurement prices, increased subsidies, etc... As the Soviet government has acknowledged that the supply of food has become "the greatest economic and political problem facing the nation", the main objective of the food program is to solve the food situation. However, the program is also designed to reduce imports of grain and other food products.

Although the countries have many similarities, they have rather diverse economic and political interests and those differences are evident from the adjustments they are making in their agricultural policies. However, their programs share some common themes. Two of the most obvious are the emphasis of the individual countries on the region's self-reliance and the reduced dependence on grain imports from hard-currency countries.

What can be expected from these changes in the agricultural policy and what are the implication for international grain trade?

Eastern Europe and the USSR have entered the 1980's in a difficult economic and financial situation.

Although the plans call for slower growth of agricultural production, the governments will still face a difficult task in trying to reach the objectives of the programs. Agriculture is not the only problematic sector; the entire economy needs to be reformed and reoriented. The governments are carrying out experimental programs of selective economic reforms however that are far from adequate for dealing with basic economic problems. For the moment the governments of Eastern Europe are making great efforts to find a solution to the financial situation through restricted grain imports. The consumers have already been asked to reduce their expectations for meat supply, therefore it may be assumed the policy of restricted grain imports will continue.

### Short-term prospects

Grain imports by the countries of Eastern Europe peaked in 1980 at over 18 million tonnes. Based on projections of livestock and grain production by countries and assuming that the countries will meet some objectives of their programs, particularly in the restructuring of livestock, improved feeding imports of grain by 1985 are expected to be about 35-45% below the amount in 1980 or 8-9 million tonnes. Imports of grain were reduced considerably during 1981-82 and further reduction, although at lower rate, is expected between 1982 and 1985.

The USSR imported 46 million tonnes of grain in 1981-82 and it is a reasonable expectation that such import will not occur in the future, at least not as regular import. If the projection of grain imports could be based on purely economic grounds, then one may conclude that import of 46 million tonnes or even higher is a reasonable forecast. The government is not moving in this direction mostly for political reasons and also due to some economic constraints. This can be illustrated by the official announcement made at the central party committee during the presentation of the new food program. It was stated "that imports of grain from capitalistic countries must be reduced, not only to encourage domestic self-sufficiency in food and fodder resources, but also to avoid grain sales being used as an instrument of political pressure". At the same time, however, it was admitted that imports would continue as a means of replenishing stocks provided this was economically feasible.

Assuming the new government will follow the food program policy and that the changing agricultural policy will improve somewhat the efficiency of agricultural production, then average grain imports up to 1985 may be 25-35 million tonnes, depending on domestic grain production.

China is a relatively stable purchaser and it is doubtful that imports during 1982-85 will increase beyond the amount committed under the existing long-term agreements, which include annual grain imports of between 12.5 and 17.5 million tonnes. The upper level of the range is believed to be a maximum handling capacity.

### Development up to 1990

Long-term forecasting is a risky undertaking, particularly for the countries where imports are a matter of political decision. Therefore my speculation will be presented with an understandable degree of trepidation.

It is forecast that the aggregate grain imports of Eastern Europe and the USSR will continue to decline between 1985 and 1990.

All Eastern European countries are planning to become self-sufficient in grain. However, the self-sufficiency policy may be problematic for some countries and even economically disadvantageous. Grain imports are likely to decline by a further 45-50% to 4-5 million tonnes.

To forecast grain imports of the USSR is a difficult task. Even if one tries to produce a good objective analysis, the results may be far from what could happen in 1990.

However, analysis of the current situation and food program up to 1990 do not suggest many options. The main objective of the 70's was to raise farm productivity through more efficient use of resources. However, to accelerate growth in efficiency gain has been the main policy failure. Efficiency of agricultural production of the 80's is not only an objective but a necessity and some improvement should be expected in this way. But even if such an assumption does materialize, grain imports would be essential in years of harvest failure and for rebuilding grain reserves. However, we do not foresee grain imports higher than estimated for 1983-85; most likely it will be proportionally lower. Storage facilities are planned to improve only gradually, and carryover stocks will therefore remain below requirements. Also, use of grain may be lower than recently projected. The meat output goal for 1990 of 20-20.5 million tonnes seems unlikely to be achieved. In fact the projected 18 million tonnes would be a good result.



Some western analysts foresee a dramatic increase in China's grain imports. This is a highly speculative calculation. China is now in the process of economic adjustment, and the government has adopted a philosophy of flexible and cautious policy. China has a good financial situation, which has been built over the years through caution in trade and such policy is expected to continue for the years of our forecast. Import of grain is foreseen to increase somewhat, but not in any dramatic way. Although China imports currently about 16 million tonnes of grain, dependence on imported grain is high, as compared with state grain availabilities from domestic sources. It is doubtful that China will be willing to increase its dependence on the west and to make the same mistake as the USSR and some Eastern European countries in building its livestock sector on imported grain.

Those projections are based on lower agricultural outputs than planned, or on insignificant increase or even on reduced per capita consumption of livestock products. Some western analysts would say "a rather bleak prospect for the consumer". But how bleak are the prospects? Of course, if you look upon food consumption of the centrally planned economies from the U.S. or Canadian point of view, it may seem to be bleak. For instance, Hungary's 70 kg of meat per capita is not favorable if compared with Canada's 111 kg. But it is quite comparable with 67 kg of meat consumed per capita in Sweden. One may compare 84 kg of FGR's with 89 kg of GDR, or Austria's 85 kg with the 85 kg of Czechoslovakia. Those countries are quite comparable as quantity of meat is concerned. But the centrally planned economies are much behind in quality and variety of meat products. Improvements in this are the main objectives of their food programs.

Although future grain trade of the centrally planned economies will depend on the countries' ability to meet the objectives set by their programs, and also on some factors outside the agricultural sector, the volume of grain they will be importing will depend to a great extent on their ability to undertake the economic adjustment which may be required in the future. Apparently, the main problem of the 70's was that the countries failed — except for Hungary and China — to change agricultural and food policy and introduce substantial and liberal reform. Also, western commercial interests and easy access to western loans made it possible to import technology and food, while postponing economic adjustments. The countries paid a high price for their mistakes.

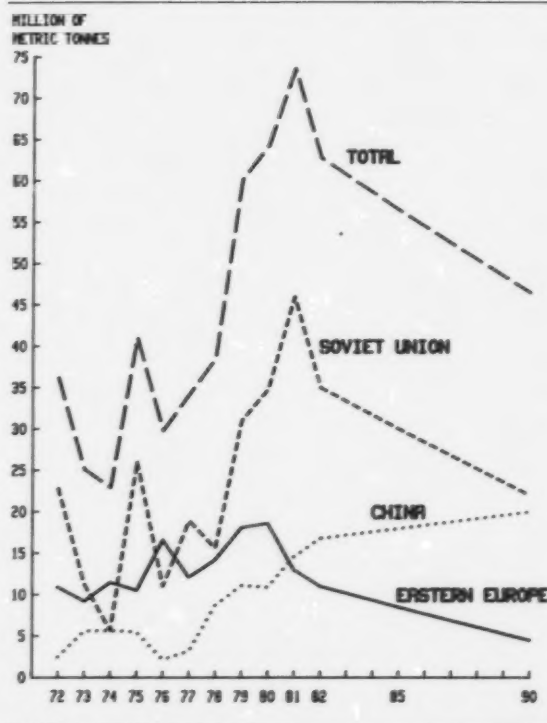
It is increasingly likely that the political leaders (even of the USSR) will be forced to make some hard decisions to cope with growing economic problems and to introduce broader economic reforms during the 1980's. In the modern world, shrunk by technical progress and dominated by the economic competition of nations, there is no room for inefficient systems.

Thank you.

#### PER CAPITA MEAT CONSUMPTION (kilograms)

| Selected developed countries<br>current |     |
|-----------------------------------------|-----|
| Austria                                 | 85  |
| FGR                                     | 84  |
| Sweden                                  | 67  |
| Switzerland                             | 80  |
| Canada                                  | 111 |

#### CENTRALLY PLANNED ECONOMIES GRAIN TRADE, 1972-82 ACTUAL AND 1985 AND 1990 PROJECTED



PER CAPITA MEAT CONSUMPTION (kilograms)

|                | Centrally planned economies 1965-1981<br>and projected 1985 |      |      |      |      |      |
|----------------|-------------------------------------------------------------|------|------|------|------|------|
|                | 1965                                                        | 1971 | 1975 | 1980 | 1981 | 1985 |
| Bulgaria       | 40                                                          | 44   | 58   | 61   | 63   | 66   |
| Czechoslovakia | 62                                                          | 74   | 81   | 85   | 85   | 81   |
| GDR            | 59                                                          | 68   | 78   | 89   | 89   | 86   |
| Hungary        | 52                                                          | 60   | 68   | 70   | 70   | 72   |
| Poland         | 49                                                          | 56   | 70   | 74   | 64   | 66   |
| Romania        | 23                                                          | 29   | 46   | 60   | 59   | 64   |
| Yugoslavia     | 27                                                          | 38   | 48   | 56   | 56   | 58   |
| USSR           | 41                                                          | 50   | 57   | 57   | 56   | 60   |
| China          |                                                             |      |      | 10   |      | 11   |
| Canada         |                                                             |      | 111  |      |      |      |

NET HARD-CURRENCY DEBT OF CENTRALLY PLANNED ECONOMIES TO THE WEST (in billion dollars)

| Year | Soviet Union | Eastern Europe | CMEA banks | Yugoslavia | China |
|------|--------------|----------------|------------|------------|-------|
| 1975 | 8.6          | 21.0           | 2.2        | 5.7        | N/A   |
| 1976 | 11.9         | 27.4           | 2.9        | 5.9        | N/A   |
| 1977 | 11.9         | 34.2           | 3.8        | 7.4        | N/A   |
| 1978 | 11.0         | 42.4           | 4.5        | 9.4        | 0.3   |
| 1979 | 9.5          | 50.3           | 4.4        | 13.5       | 1.2   |
| 1980 | 8.7          | 55.0           | 4.3        | 16.8       | 3.7   |
| 1981 | 10.2         | 55.6           | 3.9        | 17.9       | -2.7  |
| 1982 | 7.9          | 56.4           | 3.6        | 18.3       | -8.1  |

# Long-term trade prospects outside centrally planned countries

Brian T. Oleson

*Though the corn will grow much higher  
The wheat and cotton too  
We'll never have to push a plough  
In nineteen ninety-two  
But you can bet your bottom dollar  
If what I say is true  
We'll still be crying for farm relief  
In nineteen ninety-two*

Source: Popular Song from the 1930's

The above verse from the 30's song "In Nineteen Ninety-Two" attempted to forecast the economic state of the farm sector 60 years into the future. On balance, we would have to admit the forecast carried considerable insight. First, it suggests that yields would increase considerably; second, that farming would shift to labor-saving technology; third, that in spite of these technological advances a significant farm income problem will exist in 1992; and fourth, that government farm programs would continue to be an important feature of the agriculture sector.

I will not attempt to look 60 years into the future. In this day and age of rapid technological, political and economic change even a 10-year time period seems very long. However, such projections, although difficult, are important to the Canadian grains sector as they form the basis for infrastructure investment decisions in both the public and private sector. In about 1975, the Canadian Wheat Board began to emphasize long-term projections and the need for a "target approach" in the Canadian grains sector. In this fashion marketing, transportation and production could all move forward toward a common goal. Since that time we have seen significant purchases of rolling stock, rehabilitation of rail lines, and increasing investment in port and laker capacity. The export target set by the Board at that time was 30 million tonnes of grains and products by 1985. Subsequently a target of 36 million tonnes was set for 1990. Previous speakers at this conference have indicated how close we currently are to achieving the 1985 target. However, as also indicated, this performance on the volume side is over-shadowed by the current depressed level of grain prices. I will return to the subject of export targets in the context of projected levels of trade later in this paper.

## Long-term studies

There are numerous examples of long-term studies which are available to the general public. Organizations which have carried out such studies in recent years include the World Bank, FAO, the International Wheat Council, OECD, the Office of the President of the United States (Global 2000), International Food Policy Research Institute, government agencies (e.g., USDA — U.S.; CIA — U.S.; Agriculture Canada — Canada; Ministry of Agriculture, Forestry and Fisheries — Japan). Commercially, forecasting services through consulting firms such as Chase Econometrics, Wharton, and Data Resources Inc. are available to subscribers (A selected list of references is included as Appendix A). The methodology utilized in these studies can vary considerably and is often highly quantitative. Countries may be treated on an individual basis or may be included within regional or world aggregates. Commodities also may be treated on an individual basis or aggregated within sectors. In addition, multisector approaches may be utilized which incorporate the linkages between various sectors in the economy as a whole. Comprehensive studies may include country by country treatment in which each country is comprised of several sectors and each sector consists of several commodities. Great care must be taken in interpreting the results of such studies. I will later discuss the results of two recent examples of such comprehensive studies. However, the main emphasis of this address deals with underlying factors and general trends in trade. For detailed discussion of production and consumption I refer you to these other studies.

## Factors

Various factors must be incorporated into a long-term analysis of the grain trade. Our confidence in predicting values for these variables varies considerably depending upon the factor, the country, the time period, etc. The following factors, of course, are not exhaustive or fully independent. My subjective confidence level is indicated given a 10-year time perspective.

| Factor Confidence |                                |          |
|-------------------|--------------------------------|----------|
| A.                | Physical                       | High     |
|                   | - Land availability            |          |
|                   | - Soil quality                 |          |
|                   | - Water availability           |          |
| B.                | Climatic                       | Moderate |
| C.                | Technological                  | Moderate |
|                   | - Production oriented          |          |
|                   | - Consumption oriented         |          |
| D.                | Political                      | Low      |
|                   | - Government instability       |          |
|                   | - Internal market structure    |          |
|                   | - Emphasis on agriculture      |          |
|                   | - Embargos                     |          |
| E.                | Demographic                    | High     |
|                   | - Growth rates                 |          |
|                   | - Absolute increases           |          |
|                   | - Urbanization                 |          |
| F.                | Economic                       | Low      |
|                   | - Income growth                |          |
|                   | - Input price and availability |          |
|                   | - Interest rates               |          |
|                   | - Exchange rates               |          |

## Overview

On balance, the physical, climatic, technological and demographic factors of importing regions suggest the potential demand for grain imports in the next decade will be expanding rapidly.

Of the physical factors, most major land resources yet untapped are marginal or inaccessible. Soil fertility is decreasing with intensive cultivation and in many regions of the world lack of water is viewed as the major limiting resource. Weather is always a question mark; however, meteorologists suggest that the world is unlikely to experience a period as stable and favorable as that of the 50's and 60's.

Technology is unlikely to have the effect on production that it had in recent decades. There is some evidence that yield increases due to technological advance were levelling off in the 70's. Emerging biotechnologies may ultimately have a significant impact on production but the impact is unlikely to be felt before the 90's. Technology may also bring into play food sources not previously consumed; however technology will also favor increased consumption of such products as bread. Demographic factors will ultimately provide the major driving force for increasing demand. As this slide shows, the rate of population increase will remain very high. Hopefully, it will continue the decline experienced in the 80's.

More important, however, the absolute increase of population is projected to increase significantly due to the current age distribution of most developing countries. The high birth rates of recent decades means that an increasing proportion of females fall in the childbearing range. In addition, as the wide population base moves into adulthood, the per capita calorie and protein requirements increase.

Assuming a political environment conducive to continued trade expansion, the realized level of trade and mix of commodities traded will largely depend upon economic factors.

In a scenario of high economic growth, volume of trade would increase sharply, with growth in the trade in feedgrains outpacing that of wheat. In a low economic growth scenario trade growth would be lower and the mix of trade would shift in favor of wheat. The previous speaker dealt with trade prospects for the centrally planned economies. The discussion which follows focuses upon trade prospects outside centrally planned economies; however, figures for centrally planned economies are at times included to round out the picture for world trade.

## Long-term trade prospects

The previous speaker outlined prospects for the centrally planned economies. This section discusses growth in the rest of the world by means of a series of tables with comments to highlight specific points.

## Closing comments

In the context of the discussion on the longer term it might be useful to briefly review the CWB export targets earlier mentioned. The export target for grains and products from Western Canada is 30 million tonnes for 1985 and 36 million tonnes for 1990. The 1985 target was developed in 1975-76 as a 10-year target. The purpose of setting out this highly visible figure was to focus the attention of the grain industry on the potential gains from exports. These gains would be achieved only if sufficient attention were given to developing an adequate infrastructure to cope with exports of this magnitude. At the time, the projection was based on world trade in wheat by 1985 of 85 million tonnes and coarse grain trade of 94 million tonnes. These projections were criticized as being overly optimistic. However, as things turned out these levels of trade were surpassed in the 1979-80 crop year.



The point I want to make is that our trade volume projections for 1985 and 1990 were very conservative undertakings for Canada based on market growth. They were not based on taking markets from our competitors. The current expansion of our ability to ship grain out of Canada has unfortunately been seen by some of our American friends as increasing at a time when the U.S. is attempting to cut back production. This view is simply not correct. In the 70's, the U.S. expanded its production rapidly. Canada was restricted from increasing exports and sharing reasonably in trade expansion during this period due to infrastructure constraints. Canada reacted by investing in her infrastructure and the fruit of this investment is only now coming on stream. Our expanded sales program these past 2 years is the result of this longer term situation.

A gradual sustained recovery in the world economy would provide the most optimistic environment for future growth in world trade of grains. The growth rate of imports by developing countries in the 80's will be lower than the 70's but should still be very significant in absolute terms. This growth may entail a shift in import priorities in favor of food. In addition, policy decisions in developed economies, particularly the U.S. and EEC, and policy decisions in the centrally planned economies will have a major bearing on both price and volume. Ultimately volume and price cannot be treated as independent topics. Grain exporting countries are now getting the message that they were too successful in trying to meet potential world grain shortages — the perceived problem of the 70's. Exporting countries need to find ways to increase returns to producers to maintain the viability of their grain production sectors. In addition, the developed world in general must renew its efforts to assist the poorest countries in moving those economies forward. In the very long term, all trade will benefit from these efforts if more countries move into the range of middle income developing.

As a final note, I do sense our collective concerns as analysts are shifting from "scarcity" back to "surplus". The world of grain analysts in the private, public and academic sectors is small. We read the same magazines, articles and books, fabricate data jointly, scrutinize each other's reports and attend meetings together (like this one) to develop a common view. The idea of shortage was likely oversold in the 70's. However, we should be careful not to stamper too quickly in the opposite direction.

## Appendix A

### Grain trade projections to 2000: a selected bibliography

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TABLE 1. GRAIN TRADE GROWTH

|             | 1962-63          | 1972-73   | 1982-83 | 1990 |
|-------------|------------------|-----------|---------|------|
|             | (million tonnes) |           |         |      |
| Wheat       | 44 (4.4%)        | 67 (4.1%) | 100     |      |
| Feed grains | 31 (6.5%)        | 59 (5.5%) | 101     |      |

NOTES

1. In spite of significant year-to-year fluctuations, average annual growth in the grain trade was of a similar magnitude in the 60's and the 70's. (Average annual growth is shown in brackets; for example, 4.4% is the average growth in wheat trade between 1962-63 and 1972-73.)
2. While growth rates decreased slightly in the 70's, the absolute level of increase was higher.
3. As will be shown later, simple linear trends project wheat trade for 1990 increasing to 125-130 million tonnes and feed grains to over 150 million tonnes.

TABLE 2. GRAIN IMPORTS BY REGION — 1981-82

|             | Wheat            | Coarse grains |
|-------------|------------------|---------------|
|             | (million tonnes) |               |
| West Europe | 6.5              | 23.0          |
| Japan       | 5.6              | 18.3          |
| U.S.S.R.    | 18.4             | 23.9          |
| E. Europe   | 5.7              | 7.8           |
| China       | 13.1             | 1.4           |
| M.I.D.      | 35.5             | 19.7          |
| Others      | 15.2             | 6.9           |
| Total       | 100.0            | 101.0         |

NOTES

1. As the world trade figures for both wheat and feed grains are approximately 100, trade number also indicates the approximate share of world trade.
2. The following tables detail income and population statistics for the middle income developing countries (M.I.D.) selected. These countries currently account for about 35% of the wheat imports and 20% of coarse grain imports.
3. The "Others" category includes over 40% of the world population. However, their share of world grain trade is small and much of these imports are concessional. Total contributions to be completed under the Food Aid Convention total 9.3 million tonnes wheat equivalent for 1981-82.

TABLE 3. MIDDLE INCOME DEVELOPING — MIDDLE EAST

|              | Population<br>(1980)<br>(million) | Growth rate<br>(1970-79) | GNP per capita<br>(1980 \$) | Growth rate<br>(1970-79) |
|--------------|-----------------------------------|--------------------------|-----------------------------|--------------------------|
| Iran         | 38.1                              | 3.0                      | N/A                         | N/A                      |
| Iraq         | 13.1                              | 3.4                      | 3 020                       | 9.3                      |
| Israel       | 3.9                               | 2.7                      | 4 500                       | 1.6                      |
| Jordan       | 3.3                               | 3.5                      | 1 420                       | 6.0                      |
| Lebanon      | 2.7                               | N/A                      | N/A                         | -1.0                     |
| Saudi Arabia | 9.0                               | 4.6                      | 11 260                      | 9.6                      |
| Syria        | 9.0                               | 3.6                      | 1 340                       | 4.6                      |
| Turkey       | 45.4                              | 2.5                      | 1 460                       | 3.5                      |

## NOTES

1. For several countries on this table and for the table which follows on Africa, the economic prospects remain healthy but will lack the buoyant growth of the 70's.
2. The tensions between Iran and Iraq have resulted in a significant drain on these economies. The eventual ending of this conflict will allow both economies to move to higher growth paths. In the short term, prospects are good for Iran to increase its crude oil exports.
3. Growing quantities of grain are directed to feed use. Turkey currently feeds 6-7 million tonnes of grain to livestock. Saudi Arabia has developed a significant poultry industry.

TABLE 4. MIDDLE INCOME DEVELOPING — AFRICA

|         | Population<br>(1980)<br>(million) | Growth rate<br>(1970-79) | GNP per capita<br>(1980 \$) | Growth rate<br>(1970-79) |
|---------|-----------------------------------|--------------------------|-----------------------------|--------------------------|
| Algeria | 18.9                              | 3.2                      | 1 920                       | 2.8                      |
| Libya   | 2.9                               | 4.2                      | 8 640                       | -1.6                     |
| Morocco | 20.2                              | 3.0                      | 860                         | 3.5                      |
| Nigeria | 84.7                              | 2.5                      | 910                         | 5.3                      |
| Tunisia | 6.4                               | 2.1                      | 1 310                       | 5.7                      |
| Egypt   | 38.9                              | 2.0                      | 580                         | 5.3                      |
| Sudan   | 18.4                              | 2.7                      | 470                         | 1.5                      |

## NOTES

1. The list for Africa is very short. Note that in spite of the large number of countries, Nigeria is the only country south of the Sahara which I have included as a middle income developing country.
2. Nigeria is experiencing balance of payment problems due to the slump in oil prices.
3. Egypt and the Sudan, on an income criterion, should likely be left out of this grouping. Egypt is included because of its consistent large imports.
4. In the case of Egypt, non-commercial factors (aid and credit) will significantly affect growth of grain imports. However, there are major pressures to increase meat availability, particularly poultry.

TABLE 5. MIDDLE INCOME DEVELOPING — WESTERN HEMISPHERE

|           | Population<br>(1980)<br>(million) | Growth rate<br>(1970-79) | GNP per capita<br>(1980 \$) | Growth rate<br>(1970-79) |
|-----------|-----------------------------------|--------------------------|-----------------------------|--------------------------|
| Ecuador   | 8.4                               | 3.3                      | 1 220                       | 5.4                      |
| Mexico    | 67.5                              | 3.0                      | 2 130                       | 1.9                      |
| Brazil    | 118.7                             | 2.3                      | 2 050                       | 6.1                      |
| Chile     | 11.1                              | 1.7                      | 2 160                       | 0.8                      |
| Colombia  | 26.7                              | 2.3                      | 1 180                       | 3.7                      |
| Peru      | 17.6                              | 2.7                      | 930                         | 0.2                      |
| Venezuela | 14.9                              | 3.4                      | 3 630                       | 2.7                      |
| Cuba      | 9.9                               | 1.4                      | N/A                         | N/A                      |

## NOTES

1. Concern in world financial circles in the past year has focused on the possibility of default on foreign debt by countries in this region: Mexico, Brazil and Argentina. Restructuring of fast-growing debt implies tighter monetary and fiscal policies, lower value for these currencies.
2. These countries have all been affected by low oil, commodity and mineral prices. Gradual improvement in the world economy will improve prospects generally. As well, lower interest rates may reduce the debt-servicing problem to more manageable proportions.

TABLE 6. MIDDLE INCOME DEVELOPING — ASIA

|             | Population<br>(1980)<br>(million) | Growth rate<br>(1970-79) | GNP per capita<br>(1980 \$) | Growth rate<br>(1970-79) |
|-------------|-----------------------------------|--------------------------|-----------------------------|--------------------------|
| South Korea | 38.5                              | 1.9                      | 1 520                       | 8.1                      |
| Philippines | 47.9                              | 2.7                      | 720                         | 3.9                      |
| Malaysia    | 13.4                              | 2.3                      | 1 670                       | 5.4                      |
| Indonesia   | 143.0                             | 2.3                      | 420                         | 4.6                      |
| Singapore   | 2.4                               | 1.4                      | 4 480                       | 6.7                      |
| Hong Kong   | 5.1                               | 2.6                      | 4 210                       | 6.5                      |

## NOTES

1. For the industrialized nations of South Korea and Singapore, real growth is still over 5% for 1982.
2. The situation of commodity exporters such as Malaysia, Indonesia and the Philippines will improve if the expected recovery in the world economy is realized.

TABLE 7. GRAIN IMPORTS (1981-82) — M.I.D.

|               | Wheat            | Coarse grains |
|---------------|------------------|---------------|
|               | (million tonnes) |               |
| Africa        | 13.2             | 3.6           |
| Asia          | 5.3              | 5.2           |
| Middle East   | 6.6              | 5.5           |
| W. hemisphere | 10.4             | 5.4           |
| Total         | 35.5             | 19.7          |
| Growth rate   | 8%               | 7%            |

## NOTES

1. These countries have experienced rapid growth in grain consumption and imports in the 70's.
2. Population growth is very high, driving growth in food demand which will be filled through increased wheat production and imports.
3. Income levels are high enough so that a transition to high meat consumption has begun. These expectations combined with even modest income growth will result in growing feed grain imports.
4. The Western Hemisphere figure for feed grains is very low. Mexico imported only 2.2 million tonnes of coarse grains in 1981-82 in contrast to 8.4 million tonnes the year before and over 5 million tonnes (projection) this year.

TABLE 8. WHEAT IMPORTS

|                           | 1981-82          | 1990    |
|---------------------------|------------------|---------|
|                           | (million tonnes) |         |
| Industrialized            | 12               | 12      |
| Centrally planned         | 37               | ?       |
| M.I.D.                    |                  |         |
| Others                    | 36               | 51, 72  |
| Total                     | 15               | 18, 22  |
| Industrial and developing | 100              | ?       |
|                           | 63               | 81, 106 |

## NOTES

1. For general reference I have provided two scenarios for developing countries:  
 Scenario 1: Growth =  $0.5 \times$  rate in 70's  
 Scenario 2: Growth = rate in 70's  
 Growth in 70's: M.I.D. = 8%; Others = 4%
2. Imports for the industrial countries are assumed stagnant at 1981-82 levels.
3. Modest growth in imports can be expected in other developing countries. The entry of India alone into the market on a consistent basis would quickly outdate these scenarios. Also, if aid levels are increased then wheat would be a primary beneficiary.



TABLE 9. COARSE GRAIN IMPORTS

|                             | 1981-82          | 1990    |
|-----------------------------|------------------|---------|
|                             | (million tonnes) |         |
| Industrialized              | 41               | 50      |
| Centrally planned<br>M.I.D. | 33               | ?       |
|                             | 20               | 27, 37  |
| Others                      | 7                | 10, 13  |
| Total                       | 101              | ?       |
| Industrial and developing   | 68               | 87, 100 |

## NOTES

- Two scenarios are indicated for developing countries:  
Scenario 1: Growth =  $0.5 \times$  rate in 70's  
Scenario 2: Growth = rate in 70's  
Growth in 70's: M.I.S. = 7%; Others = 7%
- The projection for industrial countries assumes an increase in coarse grain imports of 4-5 million tonnes for Japan and 4-5 million tonnes for Western Europe.
- These scenarios suggest imports of feed grains a decade from now for the industrial and developing countries to be in the 87-100 million tonne range.

TABLE 10. WORLD WHEAT TRADE PROJECTIONS

|                    | 1985             | 1990 |
|--------------------|------------------|------|
|                    | (million tonnes) |      |
| Trend (1960-82)    | 95               | 106  |
| Trend (1968-82)    | 108              | 127  |
| World Bank         | 112              | 137  |
| Chase Econometrics | 109              | 115  |

## NOTES

- For reference, two trends and two forecasts are given above. One of the forecasts is by a public institution and the other by a

private consulting firm.

- The selection of the time period for trend projections can result in very different projections. Of course, the very concept of using time series, whether linear or some other functional form, should be treated with great caution.
- A breakdown of World Bank projections is summarized in Appendix B. Real growth in the world is assumed to increase from 1.5% in 1982 to 3.2% in 1983 and 3.9% for the period 1983-90.
- Chase Econometrics and other consulting firms such as DRI and Wharton generate long-term forecasts often on an ongoing basis. Methodology of these services usually combines modeling and expert opinion of analysts.

TABLE 11. WORLD COARSE GRAIN TRADE PROJECTIONS

|                    | 1985             | 1990 |
|--------------------|------------------|------|
|                    | (million tonnes) |      |
| Trend (1960-82)    | 115              | 135  |
| Trend (1968-82)    | 127              | 153  |
| World Bank         | 152              | 205  |
| Chase Econometrics | 115              | 143  |

## NOTES

- The notes after Table 10 generally apply to this table as well.
- The World Bank figure includes a figure for centrally planned countries of 95.4 million tonnes of feed grains. The 1980 version was 17 million tonnes.

TABLE 12. WORLD BANK FORECASTS

| Version | 1985               |                    | 1990                |                    |
|---------|--------------------|--------------------|---------------------|--------------------|
|         | Wheat              | Coarse grain       | Wheat               | Coarse grain       |
|         | (million tonnes)   |                    |                     |                    |
| 1975    | 67, 77<br>(40, 50) | 71, 80<br>(22, 25) | (64, 72<br>(35, 44) | 60, 70<br>(14, 22) |
| 1978    | 93<br>(60)         | 98<br>(24)         | 108<br>(72)         | 105<br>(26)        |
| 1980    | 93<br>(61)         | 98<br>(34)         | 108<br>(73)         | 105<br>(37)        |
| 1982    | 112<br>(66)        | 152<br>(59)        | 136<br>(82)         | 205<br>(72)        |

## NOTES

- Actual 1981-82 Wheat 100 (50)  
Coarse grains 101 (27)
- \* represents 1975 version of projection for 1980. In the 1975 version low and high projections were reported.
- Projections for developing countries are in brackets.
- The projections for developing countries are not bad. For

example, the 1975 version correctly projected market share of developing countries and was reasonably close for actual imports.

- To date the World Bank projections consistently have been too low. The world is in for a major surprise if the current projection also turns out to be too low.

## Appendix B

TABLE 1. WORLD BANK PROJECTIONS OF WHEAT IMPORTS BY REGION<sup>1</sup>

|                           | 1980 <sup>2</sup> | 1985 projections |              | 1990 projections |              |
|---------------------------|-------------------|------------------|--------------|------------------|--------------|
|                           |                   | 1980 version     | 1982 version | 1980 version     | 1982 version |
| Industrial                | 17.3              | 17.0             | 17.3         | 20.0             | 18.0         |
| (Japan)                   | (5.7)             | (5.9)            | (6.3)        | (6.0)            | (7.0)        |
| (EC9/10)                  | (10.5)            | (10.2)           | (9.5)        | (11.8)           | (8.9)        |
| Centrally planned         | 34.1              | 15.0             | 44.2         | 15.0             | 52.2         |
| (USSR)                    | (14.7)            | (4.5)            | (21.9)       | (4.5)            | (28.8)       |
| (China)                   | (12.3)            | (6.0)            | (15.0)       | (6.0)            | (15.8)       |
| Developing <sup>3</sup>   | 38.0              | 61.0             | 50.8         | 73.0             | 66.4         |
| (India)                   | -                 | (5.5)            | -            | (6.0)            | -            |
| (Egypt)                   | (4.4)             | (5.3)            | (7.8)        | (5.8)            | (12.5)       |
| (Brazil)                  | (4.8)             | (4.2)            | (7.0)        | (4.9)            | (9.4)        |
| (S. Europe)               | (2.8)             | (3.0)            | (3.2)        | (3.2)            | (3.8)        |
| World                     | 89.4              | 93.0             | 112.3        | 108.0            | 136.6        |
| Industrial and developing | 55.3              | 78.0             | 68.1         | 93.0             | 84.4         |

<sup>1</sup> At time of analysis estimated values for 1978 and 1981 were available for the 1980 and 1982 versions, respectively.

<sup>2</sup> World Bank 1980 figures maintained for consistency. Final figures

differ slightly.

<sup>3</sup> China is included in developing category in 1982 version. Numbers have been adjusted to make table consistent with 1980 version.

TABLE 2. WORLD BANK PROJECTIONS OF COARSE GRAIN IMPORTS BY REGION<sup>1</sup>

|                           | 1980 <sup>2</sup> | 1985 projections |              | 1990 projections |              |
|---------------------------|-------------------|------------------|--------------|------------------|--------------|
|                           |                   | 1980 version     | 1982 version | 1980 version     | 1982 version |
| Industrial                | 42.7              | 45.0             | 44.8         | 47.0             | 51.9         |
| (Japan)                   | (18.8)            | (18.0)           | (23.4)       | (18.8)           | (29.9)       |
| (EC9/10)                  | (20.9)            | (25.0)           | (21.0)       | (25.0)           | (21.2)       |
| Centrally planned         | 32.5              | 15.0             | 58.9         | 17.0             | 95.4         |
| (USSR)                    | (14.5)            | (7.0)            | (30.1)       | (8.0)            | (50.1)       |
| (China)                   | (5.4)             | -                | (10.2)       | -                | (14.6)       |
| Developing <sup>3</sup>   | 35.0              | 32.0             | 48.8         | 34.0             | 57.7         |
| (Mexico)                  | (6.2)             | (2.1)            | (9.6)        | (2.5)            | (12.8)       |
| (S. Europe)               | (10.0)            | (9.8)            | (10.8)       | (10.3)           | (11.5)       |
| World                     | 110.2             | 92.0             | 152.5        | 98.0             | 205.0        |
| Industrial and developing | 77.7              | 77.0             | 93.6         | 81.0             | 108.6        |

<sup>1</sup> At time of analysis estimated values for 1978 and 1981 were available for the 1980 and 1982 versions, respectively.

<sup>2</sup> World Bank 1980 figures maintained for consistency. Final figures

differ slightly.

<sup>3</sup> China is included in developing category in 1982 version. Numbers have been adjusted to make table consistent with 1980 version.

# Reply to dairy outlook<sup>1</sup>

Raymond Cloutier\*

In December 1980, I had an opportunity to give you my reply to that year's dairy outlook. I decided then not to give you a point-by-point reply. That is my intention again this year.

In the early 80's, industrial milk needs expanded despite everyone's predictions. At the time, I told you some of my thoughts on the ability of economists and experts in the dairy industry to predict accurately the variations in demand. Now, 2 years later, the demand for dairy products is again declining. We find it hard to assess the situation. We are looking everywhere for managers to handle the downturn. The dairy industry certainly has the highest concentration of such managers, since the consumption of dairy products has slipped consistently (except for 2 or 3 years). To explain this phenomenon, many reasons are given, but the most frequent one is the high price of dairy products. That is what I want to discuss with you today. My ideas will revolve around the food habits of Canadians and price comparisons between dairy products and other foods.

To begin with, let us look at the data showing the percentage of food energy, proteins, fats and carbohydrates that dairy products provide in the Canadian diet.

## PERCENTAGE OF NUTRIENTS IN THE DIET PROVIDED BY DAIRY PRODUCTS, CANADA, 1960-1975<sup>1</sup>

|                  | 1960 | 1975 |
|------------------|------|------|
|                  | (%)  |      |
| <i>Nutrients</i> |      |      |
| Food energy      | 13.3 | 11.6 |
| Proteins         | 26.0 | 22.9 |
| Fats             | 15.7 | 13.1 |
| Carbohydrates    | 8.2  | 7.2  |

<sup>1</sup> Apparent Nutritive Value of Food Available for Consumption in Canada, 1960-1975, by Linda Robbins and Sushma Barewal, Agriculture Canada, Marketing and Economics Branch, March 1981

Between 1960 and 1975, the percentage of all nutrients provided in the Canadian diet by dairy products fell.

What about the hypothesis that the prices of dairy products are too high in relation to the prices of other foods? This is the argument used to explain why Canadians are consuming a smaller quantity of dairy

products. A comparison of the dairy products price index with the food price index shows that from 1961 to 1975, dairy products were somewhat cheaper than other foods. Nevertheless, consumption of dairy products showed a constant, steady decline during this period. Consumption increased very slightly in 1973 and 1974. At the same time, the prices of dairy products were lower than ever in relation to food prices. We will come back to this later.

People in the dairy industry like to repeat that dairy products provide the best protein in the world. There is no waste; a kilo purchased is a kilo consumed. With meats, however, there is a loss of volume and weight in preparation, cooking and cutting. The waste on the steak you eat may be fairly substantial in relation to the meat you actually consume. And yet, consumers are shunning dairy products. Is it because of price? This does not seem to be the only reason, as we have seen earlier. Dairy product prices are lower than food prices.

Let me push the comparison a little further. I obtained the prices of certain cuts of meat and compared them with the prices of various cheeses. The prices were taken from a Quebec City supermarket in November. They reveal the following:

- Brie or Camembert cheese is more expensive (\$13.60/kg) than any meat, except for filet mignon and smoked beef (about \$16/kg).
- Specialty cheeses such as Swiss and gouda (\$10/kg) are all more expensive than meat, except for filet mignon, smoked beef and ham.
- Mozzarella, Colby, brick, cheddar (\$8.77 to \$7.58) are all more expensive than meat (round at \$6.66).
- Sliced process cheeses are equivalent in price (\$6.66) to certain cuts of pork or beef.
- Even if meat prices are adjusted to take waste (as a result of cooking, excess fat) into account, only mozzarella, Colby, brick and cheddar compare favorably with certain cuts of pork and beef.

Except for haddock and sole (\$8.44 to \$9.01/kg), fish prices are lower than cheese prices.

Several beverages are much higher in price than the 2% milk sold in 1 L containers (\$0.73/L). For example, apple juice, orange juice, mineral water and soft drinks sell at a regular price of \$1-\$1.31/L. Powdered or frozen juices are equivalent in price. Colored drinks are slightly lower in price; I won't talk about spirits, wine and beer. These are rough comparisons. However, in my opinion, they illustrate

<sup>1</sup> For the outlook on dairy, see *Market Commentary*, December 1982

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fairly well the choices available to the consumer. I do not intend to dwell further on this subject, since we would talk at length about homo economicus or the informed consumer. I know what I am talking about, thanks to the recent discussions that I have had on the subject.

From a comparison of the cheddar price index with the food price index, we have seen that cheddar prices were lower than food prices at least until 1979-80. I tried to learn more, and this is what I found.

The consumption of cheddar cheese declined in 1981, and the decline gained momentum in 1982. A virtual price explosion was behind the decline in consumption. The price surge was caused by an increase in the margin between the wholesale price and the plant price at Belleville and the margin between the retail price and the wholesale price.

First of all, the wholesale/Belleville margin, which stood at \$0.60/kg in the first quarter of 1981, rose to \$1.20/kg in the second quarter of 1981 and has stayed at this level since then. The retail/wholesale margin, which stood at \$1.84/kg in the first quarter of 1981, fell to \$1.40/kg in the second and third quarters of 1981, before rising again to \$1.64/kg in the fourth quarter. After reaching \$1.98/kg in the second quarter of 1982 and \$2.01/kg in the third quarter of 1982, this margin climbed to \$2.28/kg in October 1982. As a result of these margin increases, the retail prices of cheddar rose by 15% from 1981 to 1982. And this occurred at a time when the industry was trying to reduce cheddar inventories by about 10 thousand tonnes. The marketing agents who held these inventories had chosen to pass on to consumers the inventory cost increases (storage and interest). They succeeded, at the cost of a decline in cheddar consumption. A kilo of cheddar, which sold for \$6.20 in January 1981, now costs \$7.91. This represents an increase of nearly 30%, whereas the food price index rose barely 11% during the same period.

The variations in fluid milk consumption were found to be inversely proportional to the variations in cheese consumption, thus showing that there is a substitution effect between fluid milk and cheese. Consumers who have a tendency to eat more cheese would consume less fluid milk and vice versa.

Which leads me to the point: the proportion of home food expenses allotted to dairy products remains almost constant at about 15% from one year to the next and from one industrialized country to another. I have already made this point to the Dairy Bureau of Canada. We must carry out a precise analysis of these data if this question is to be clarified. The Irish economists responsible for carrying out this type of analysis for the EEC had to submit their analysis report early in 1982.

The Canadian data are of obvious interest and would tend to support the hypothesis that dairy products form a constant share of the home food budget. The price of dairy products in relation to that of other foods would explain the percentage differences from year to year and from city to city between 1969 and 1978. For example, in 1973, the price of dairy products moved less quickly than the prices of other foods, reducing the percentage of the budget allotted to dairy products.

If these percentages are adjusted to take into account the price movement of dairy products in relation to the price movement of other foods in Canada as a whole, we obtain 15.9%, 15.4%, 15.0% and 15.6% for the years 1969, 1974, 1976 and 1978 respectively. Likewise, if we were to take into account the fact that the prices of dairy products are higher in Halifax and Vancouver, we could eliminate the apparently higher percentage of the budget devoted to dairy products in these two cities as compared with elsewhere in Canada. The situation is reversed in Montreal.

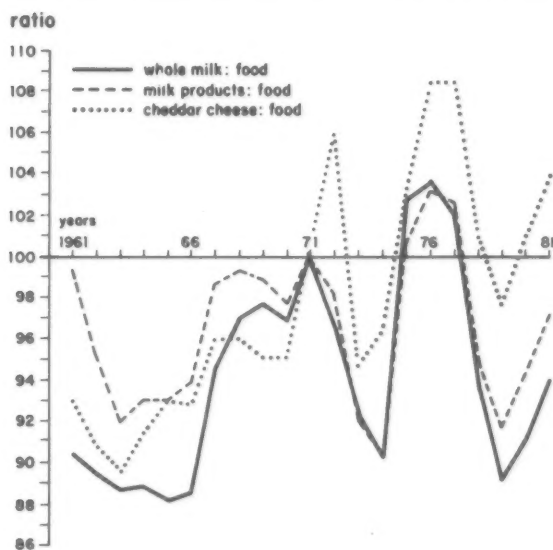
PERCENTAGE OF HOME FOOD EXPENSES ALLOTTED TO DAIRY PRODUCTS

| Year | Halifax | Montreal | Toronto | Winnipeg | Vancouver | Canada |
|------|---------|----------|---------|----------|-----------|--------|
|      |         |          |         | (%)      |           |        |
| 1969 | 16.6    | 14.5     | 16.6    | 15.9     | 15.8      | 15.7   |
| 1974 | 16.1    | 12.7     | 14.5    | 14.3     | 14.1      | 13.9   |
| 1976 | 17.6    | 14.2     | 15.5    | 16.7     | 17.5      | 15.5   |
| 1978 | 17.9    | 13.4     | 14.6    | 14.9     | 16.3      | 14.8   |



What conclusion may be drawn? An examination of the graph showing the ratios of dairy product prices to food prices clarifies, at least in the case of the most recent years, some of the reasons why the demand for milk and dairy products declined in 1975, 1976 and 1977: dairy products rose faster in price during this period. On the other hand, in 1978, 1979 and 1980, the opposite happened and milk demand increased. The Canadian Milk Supply Management Committee had to raise quotas during this period. The last data in the graph would indicate there is a relationship between the fall in Canadian demand in 1982 and the fact that the price of dairy products (especially cheddar) once again compared unfavorably with food prices. The situation should improve in 1983. The additional margins of \$0.60/kg (wholesale/Belleville) and of \$0.44/kg (retail/wholesale) should be eliminated with the anticipated drop in storage costs. The reduced margins should cause cheddar consumption to increase.

RATIOS OF DAIRY PRODUCT PRICE INDEXES TO THE FOOD PRICE INDEX, 1961 TO 1981



Sources: Cansim extraction system, Statistics Canada, 1961-1981; Consumer Prices and Price Indexes, Statistics Canada, Catalog 62-010, quarterly; Quebec Department of Agriculture, Fisheries and Food, Marketing Plans Analysis Service, November 1982.

People in the dairy industry should carry out studies to try to reconcile the following seemingly contradictory observations:

- Over the long term, dairy products will represent a shrinking percentage of the Canadian diet.
- This is happening despite periods in which prices of dairy products may have compared favorably with food prices.
- Nevertheless, the portion of the home food budget allotted to dairy products is almost constant (15%).

Can the dairy industry develop a price structure for dairy products and a range of dairy products better adapted to the requirements of Canadian consumers?

In so doing, will the industry be able to reverse the declining trend of dairy products in the Canadian diet and favorably increase the portion of the home food budget allotted to dairy products?

Some believe that it is feasible. Then, there are the ideas of people such as Christian Dussaut, director of the Marketing Department, University of Sherbrooke. At the annual convention of the Quebec Dairy Council, Mr. Dussaut referred to the emergence of a new type of consumer, the "voluntary simplifier". This is a consumer who looks for simple, wholesome foods and is more frugal than the extravagant consumer of past years. Can the dairy industry satisfy this type of consumer? With the emergence of the "voluntary simplifier", markets become fragmented. The market share held by small corner grocers increases once again. Will the sale of milk in large containers (4 L bags containing three pouches of 1.3 L each) decline in favor of the sale of smaller containers? I was asked by several single persons (elderly and others) where they might obtain small cartons of milk (200-250 mL) for home consumption. As far as I know, this format cannot be found on grocers' shelves. These people said they were frustrated because the 1 L container does not meet their needs. The 0.5 L container surely meets the needs of some of these consumers.

Ice cream is another example along the same lines. I looked in vain for a 1 L brick of ice cream. It seems that this container disappeared from circulation with metrication. And yet, there is certainly a market for this size of container.

There is all this behind the figures and trends of the outlook. The dairy industry is recognized to be one of the most regulated industries. Yet, contending with ups and downs remains a constant challenge.

# TREND IN THE MARKETING MARGINS FOR CHEDDAR CHEESE, 1981 AND 1982

|             | Wholesale price<br>(Montreal) and<br>Belleville price |                | Retail price and<br>wholesale price<br>(Montreal) |                |
|-------------|-------------------------------------------------------|----------------|---------------------------------------------------|----------------|
|             | 1981                                                  | 1982           | 1981                                              | 1982           |
|             | (\$/kg)                                               |                |                                                   |                |
| 1st quarter | 0.62                                                  | 1.16           | 1.84                                              | 1.64           |
| 2nd quarter | 1.20                                                  | 1.22           | 1.40                                              | 1.98           |
| 3rd quarter | 1.18                                                  | 1.19           | 1.41                                              | 2.01           |
| 4th quarter | 1.19                                                  | 1.22<br>(Oct.) | 1.64                                              | 2.28<br>(Oct.) |

Sources: Canadian Dairy Commission; Agriculture Canada, Dairy Market Report, 1981 and 1982; Statistics Canada, Consumer Prices and Price Indexes, Catalog 62-010, quarterly, 1981 and 1982;

Quebec Department of Agriculture, Fisheries and Food, Economic Studies Branch, Marketing Plans Analysis Service

# PRICE OF CHEDDAR CHEESE AT VARIOUS LEVELS IN THE MARKETING CHAIN, 1981 AND 1982

| Quarter      | Support price<br>(butter powder<br>equivalent) |      | Belleville<br>price |      | Wholesale<br>price<br>Montreal |      | Retail<br>price |      |
|--------------|------------------------------------------------|------|---------------------|------|--------------------------------|------|-----------------|------|
|              | 1981                                           | 1982 | 1981                | 1982 | 1981                           | 1982 | 1981            | 1982 |
|              | (\$/kg)                                        |      |                     |      |                                |      |                 |      |
| 1st quarter  | 3.65                                           | 4.11 | 3.74                | 4.23 | 2.36                           | 5.39 | 6.20            | 7.03 |
| Differential | (+ 12%)                                        |      | (+ 13.1%)           |      | (+ 23.7%)                      |      | (+ 13.4%)       |      |
| 2nd quarter  | 3.79                                           | 4.17 | 0.09                | 0.12 | 0.62                           | 1.16 | 1.84            | 1.64 |
| Differential | (+ 10%)                                        |      | (+ 9.2%)            |      | (+ 7.9%)                       |      | (+ 15.2%)       |      |
| 3rd quarter  | 3.95                                           | 4.33 | 0.06                | 0.06 | 1.20                           | 1.22 | 1.40            | 1.98 |
| Differential | (+ 9.6%)                                       |      | (+ 9.2%)            |      | (+ 7.3%)                       |      | (+ 14.8%)       |      |
| 4th quarter  | 3.95                                           | 4.33 | 0.09                | 0.08 | 1.18                           | 1.19 | 1.41            | 2.01 |
| Differential | (+ 9.6%)                                       |      | (+ 9.2%)            |      | (+ 7.6%)                       |      | (+ 15.1%)       |      |
|              |                                                |      | 0.09                | 0.08 | 1.19                           | 1.22 | 1.64            | 2.28 |

Sources: Canadian Dairy Commission; Agriculture Canada, Dairy Market Report, 1981 and 1982; Statistics Canada, Consumer Prices and Price Indexes, Catalog 62-010, quarterly, 1981 and 1982;

Quebec Department of Agriculture, Fisheries and Food, Economic Studies Branch, Marketing Plans Analysis Service

TABLE 1. PRICE/WEIGHT COMPARISON BETWEEN MEAT, CHEESE AND BEVERAGES

| Beef                   | (\$/kg) | Pork            | (\$/kg) |
|------------------------|---------|-----------------|---------|
| Smoked meat            | 16.25   | Smoked ham      | 11.88   |
| Beef tenderloin        | 16.03   | Dinner ham      | 7.69    |
| Small blade roast      | 8.33    | Pork tenderloin | 6.50    |
| Beef salami            | 7.28    | Bacon           | 4.96    |
| Sandwich steak         | 6.99    | Ground pork     | 4.76    |
| Tenderized round steak | 6.66    | Chicken         |         |
| Steakette (frozen)     | 5.32    | Boneless        | 9.30    |
| Lean ground beef       | 5.00    | Bone-in         | 3.86    |

(continued)

TABLE 1. PRICE/WEIGHT COMPARISON BETWEEN MEAT, CHEESE AND BEVERAGES  
(Concluded)

|                      | (\$/L) |                                  | (\$/L)  |
|----------------------|--------|----------------------------------|---------|
| <i>Beverages</i>     |        |                                  |         |
| Gin                  | 15.85  | Chocolate syrup                  | 0.40    |
| Wine                 | 5.87   | Instant chocolate                | 0.29    |
| Cider                | 3.29   | Tea                              | 0.27    |
| Beer                 | 1.76   |                                  |         |
| Seven Up             | 1.37   |                                  | (\$/kg) |
| Instant coffee       | 1.31   | <i>Cheese</i>                    |         |
| Apple juice (Oasis)  | 1.31   | Imported Brie                    | 13.65   |
| Orange juice (Oasis) | 1.31   | Camembert                        | 13.20   |
| Orange juice         | 1.30   | Petit Québec (very mild cheddar) | 11.79   |
| Mineral water        | 1.27   | Swiss                            | 10.53   |
| Frozen grape juice   | 1.25   | Partly skimmed mozzarella        | 8.77    |
| Coca cola            | 1.25   | Colby                            | 8.63    |
| Tomato juice         | 1.16   | Curd cheese                      | 8.43    |
| Frozen orange juice  | 1.06   | Brière                           | 8.43    |
| Pepsi                | 1.00   | Very mild cheddar                | 7.91    |
| Discount Pepsi       | 0.48   | Mild cheddar                     | 7.91    |
| Frozen apple juice   | 0.94   | Medium cheddar                   | 7.58    |
| Percolator coffee    | 0.89   | Sliced cheese                    | 6.66    |
| Grape juice          | 0.73   | Philadelphia                     | 6.32    |
| Apple juice          | 0.67   |                                  | (\$/L)  |
| Grape soft drink     | 0.66   | <i>Milk</i>                      |         |
| Orange (Fang)        | 0.66   | Fresh milk (87.44% moisture)     | 0.73    |
| Grape (Kool Aid)     | 0.53   | Fresh milk (dry equivalent)      | 5.8     |
| Orange (Kool Aid)    | 0.53   | Cheese equivalent                | 7.31    |
| Grape drink          | 0.53   | 2% milk                          | 0.73    |
| Apple drink          | 0.53   | Milk powder                      | 0.44 to |
| Orange drink         | 0.53   |                                  | 0.51    |
| Orangeade            | 0.52   |                                  |         |

# The economies of milk production

W.H. Sherwood\*

It is not easy to know what, at an Outlook Conference, are the most appropriate and useful matters to discuss under the title given me. In fact, without worrying too much about the best approach, or overlap with the other speakers in this session, I will have a word to say on a number of matters. Each is part of the reality that producers live with and that shape their professional lives. These matters fall into two general categories. One is the economics of farm level production itself: the application and improvement of technology, of management, and of services that determine the costs that the producer pays, and justify the rewards he receives.

The other category is the economics of demand, supply, pricing, marketing and product development, and their place in the farm and general economies, national and international.

In the first the focus is clearly on farm productivity: the science, technology and skills of breeding and feeding; production and storage of fodder, milking, and milk storage; record-keeping; financial management, animal health, labor training, and programs related to them on which the producer depends.

The second category has its focus on how much can and should be produced, and through what marketing systems, in relation to what economic and social objectives and criteria. In the Canadian dairy industry these questions, and the research for best options, has led to the combined supply management/price stabilization system that we have today. It has also led to major producer-financed advertizing and promotion efforts, at both provincial and national levels. It has reached this position through a long evolutionary process of policy development, and I think it is the best and most appropriate system for Canada's dairy industry.

In both these categories the organization I represent, Dairy Farmers of Canada, has major interests and I would like to discuss some aspects of these with you. In doing so I would emphasize at the outset that Dairy Farmers of Canada is an organization of provincial boards, associations and cooperatives and a great deal of the effective work of producers in both categories takes place at provincial level.

\* President, Dairy Farmers of Canada

In the first category of farm level productivity improvement the outlook is, and should be, one of increasing producer interest and involvement. It is the philosophy of Dairy Farmers of Canada that the benefits to producers of our supply management policies require of them a parallel responsibility to help ensure that the industry does move ahead. Dairy farmers have taken, nationally, a particular interest in milk quality improvement, in milk recording, in mastitis control and prevention (particularly in regard to its incidence at the sub-clinical level) and in brucellosis control, to mention some.

Since the implementation of the new eradication program for brucellosis took place in 1978, an enormous amount of progress has been made in eliminating the disease from our herds. It is the goal of all concerned — the federal and provincial governments, dairy producers, and all other sectors of the dairy industry — to completely get rid of the disease by 1987. At the present time everything indicates that complete eradication by that date is feasible. The last I heard there were only 52 herds in quarantine in Canada, of which only three showed confirmed infections. If you compare these numbers with the nearly 900 herds under quarantine in 1978 you can see we have come a long way.

I am extremely concerned, however, about the impact on our program of regulations being passed in the various states of the United States requiring imported cattle to have been vaccinated. There are about 20 states that have already implemented such regulations, which force producers interested in exporting cattle to the U.S. to vaccinate their calves between the ages of 2 to 8 months. When these regulations began to be introduced during 1981 we saw in Canada an increase of 27% in vaccination and a much greater increase is expected in 1982. The issue is a complex one but in simple terms I have increasing doubts that complete eradication can be achieved if there is increasing use all across the country of vaccines containing live organisms. For our own domestic situation the vaccine serves, in my view, no purpose. While the situation in respect to brucellosis is much more severe in the U.S., some northern states which have very little incidence have passed these vaccination regulations. They are entirely unjustified in regard to Canadian cattle imports since the danger of introduction of the disease from our cattle is nil.



I think everyone concerned with animal health in this country needs to seriously address what action can be taken to ensure the border states make an exception for our Canadian cattle. Health of Animals has already started discussion with individual states and they will continue these. If any help can be provided by provincial governments and provincial producer organizations then such help should be granted. If we do not succeed in eradicating brucellosis when we are so close to achieving a free status we will have to accept such failure and be prepared to live with it. Unfortunately, in such a situation everyone loses.

The objective of Dairy Farmers of Canada for milk recording is that by 1990, 80% of the national herd be on test, and that a full range of associated management services be available to all farmers on test. This objective was established at a national conference held by Dairy Farmers of Canada in 1980. The 80% level was arrived at by the conference not only because it is desirable and should be achievable from the point of view of the on-farm management advantages to producers, but also, and more precisely, as a judgement that this level of test is required for an optimum system of sire appraisal. The Outlook Conference is a good place to raise and discuss this subject because success in achieving the objective will require important cooperative action between producers and governments at all levels. Involved is efficient integrated planning of programs, and equitable sharing of the costs.

On the matter of sharing of costs, the conference recognized that the producer share of financing would have to rise, but hoped that both provincially and federally the level of government support in real terms would not fall. As far as producers are concerned, I do believe that costs should also be shared — partly by all producers through a general levy, since all producers benefit by the breed improvement benefits that flow from milk recording — and partly of course by producers on test. I do urge governments and producers across Canada to proceed as rapidly as possible with review of existing programs, plans for necessary restructuring, and integrated relationship to federal services. Dairy Farmers of Canada has formed a national milk recording group for ensuring adequate producer coordination and flow of information, and the National Milk Recording Board also has an important role to play in this regard.

One concern of Dairy Farmers of Canada is that producers support an optimum effort in production research related to dairy industry needs: identifying those needs, seeing that they are met, and assisting in the extension of results to producers. There is a very real concern that we have insufficient staff resources to acquire, on a continuing and cumulative basis, the necessary knowledge and expertise to contribute effectively to these objectives. We are planning to employ a staff member very soon to begin to remedy this defect. I should make it very clear, because I have encountered some confusion on the point, that this initiative does not involve the doing or financing of research. It is a policy development, communication and consultative function purely that we are going to try and strengthen. The funding of research is one of the policy areas that will need to be addressed as we go along, but Dairy Farmers of Canada is not setting up a research funding program. Our initiative is a modest one that we hope and believe will prove useful and important over time.

On a more specific point, we have been made aware recently of an increasing concern about the inadequacy of funds in animal research, and a particular concern about the lack of funds for mastitis research. The estimated production loss of \$200 to \$300 million annually, mainly related to sub-clinical mastitis, is one measure of the progress yet to be made.

Regarding the economics of the marketplace, and Canada's marketing system, it would seem odd in an Outlook Conference not to observe that the Dairy Review, intercepted by the 6 and 5 guidelines policy, resulted in a 2-year extension of the use of the 1975 returns adjustment formula for establishing the target level of returns for industrial milk. This will extend its application to at least a 9-year term, subject to possible restriction by the setting of the 6 and 5 guidelines on the level of butter and skim milk powder support prices. The precise rules for the application of the guidelines have not yet been made clear by the government. The declared willingness of dairy farmers to attempt to live with the guidelines, subject to major cost increases, is in my opinion a substantial contribution to the 6 and 5 policy objective. I say this with confidence in view of a number of facts. In the judgement of Dairy Farmers of Canada the returns adjustment formula is causing a gradually increasing inadequacy of returns to industrial milk that for 2 more years will not be corrected. The guidelines, if they restrict the full application of the formula, will compound the problem. In addition, we are experiencing major increases in levy costs associated with our export programs which are now in place — increases that do not affect guideline calculations or the target level of returns, but which directly reduce producer incomes.

I will not here go into the details of the costing discussions and studies that were a major feature of the Dairy Review exercise, except to assure you that they did take place in considerable depth. The establishment of principles of cost determination and their application to pricing is an exercise of a technical complexity that presents a challenge to the understanding both of professionals and, I can assure you, of producer representatives. However, at bottom the considerations that make the differences are ones of equity to producers, fairness to consumers, and the economic viability of the industry.

It is to be hoped that by the time the period of the guidelines comes to an end (i.e. early 1984), the economy, agriculturally and otherwise will have turned the corner, and that the need for a renewed federal commitment to price adequacy on a forward-planning basis will then be adequately met.

The present is a time of generally depressed economic conditions and disturbing uncertainty about the outlook for the 80's. Cash flow problems beset farmers as well as many others. Grain and other prices are depressed. Hog prices have been deeply depressed and could become so again soon. The outlook is not encouraging. Undoubtedly these things account in major part for the escalation of surplus milk production in the U.S., in face of what are in fact inadequate returns to milk production.

There are few if any countries in the developed world that do not pursue, in dairy policy, objectives of essential self-sufficiency and of price stability and adequacy. Except for the New Zealand and perhaps Australian industries, export surpluses arise from the operation of such policies. The relatively labor-intensive and local processing characteristics of the industry are valued by governments. Canada is no exception. The outlook is that dairy policies of governments will not change in basic direction, although there will be fluctuations in pricing policy, and fluctuations also in the size of export surpluses. World prices for dairy products will likely remain typically low in relation to costs of production in virtually all countries. The situation at present is particularly acute, largely as a result of the emergence of increasing U.S. export surpluses.

The present is a time when we are faced with increased world surpluses, compounded by weakened international demand. Prices have declined. Other speakers addressing this session will have discussed the international price and supply situation at some length, and as well the demand and supply outlook. What I wish to talk about particularly in relation to these matters is the distressing likelihood that there will, in the course of this year, be a further squeeze put on farmers beyond the reduction in quota levels, and increase in levies, instituted August 1st for this dairy year (As this is written the answers on these questions are not all in and a verbal up-to-date report will be given).

A great deal more discipline is necessarily being injected into the supply management system this year. There will be far less scope than in recent years for individuals overproducing their quota to be assisted by year-end allocations from underproducing individuals and provinces. There is a growing recognition that more careful measures to schedule quota entitlement during the course of the year will be necessary to signal clearly to producers when they are producing too heavily. It is very important to avoid sharp year-end reductions in milk supply as a result of producers running out of quota.

A word should be said about the overall level of our domestic requirements for industrial milk, which as you know are measured on a butterfat basis. Producers have been increasing their efforts to maintain and expand the industry, with substantial success. It is important however that producers understand that as fluid milk consumption increases, the excess butterfat that's put into the system through sale of low fat fluid milk acts to reduce industrial milk requirements. Also, the industry is working toward keeping butterfat content in milk products to minimum standard levels, and is increasingly capable technically of doing this with precision. This also lessens requirements to some degree. An expansion in industrial milk requirements, and therefore of the quota base, is hard to come by, and the problem is currently compounded by the economic recession and consequently weakened demand. It is a question of keeping our expectations realistic. Producers should well understand these things, in particular, so that they do not reach a wrong assessment of our marketing, stabilization and promotion policies.

In Canada, as in a few other countries, the supply management system essentially, with some variation, limits export surpluses to a planned basis, and the cost of those exports is met by producers through levies. The main levy amounts required are to finance the export of skim milk powder. Further levy costs are incurred in most provinces to finance the cost of exporting whole milk products. This too is a planned export program. The increasing amount of the levies is of great concern to producers. At some level the question arises whether in fairness, or for industry viability, they are not too great, and whether, as happened in the mid-70's, the impact of the unregulated occurrence of export surpluses in other countries does not carry with it some degree of government responsibility.

Of particular concern to producers is the question of whether our planned export program is sound. The present position of Dairy Farmers of Canada is, first, that it cannot be turned on and off with market changes; second, that the program should not be expanded; and third that the question of its long-term viability is being carefully studied by producers.

The short-run outlook is not a very happy one. But in a proper longer-term perspective I think there are sound grounds for optimism. The challenge is to people in the industry to work actively, and innovatively, to maintain and expand domestic markets, and to ensure the efficient management of our farms and our supply management system. It is a good system and should serve farmers, the public, and the whole dairy sector well in the future, as it does now.

# General commodity overview

Nelson Longmuir

## Fruits

**APPLES.** An issue of concern in the 1980's is the expansion of world fruit supplies, especially apples. For example, the large 1982 northern hemisphere apple crop is an indication of the quantity that will have to be sold in the future.

The challenge will be to market a steady apple supply in all forms (fresh and processed) both domestically and abroad. In order to meet this challenge the expansion of storage facilities — especially C.A. — will give producers an opportunity to market their crops more uniformly throughout the year. Market development will be vital in the long run in order to maintain and expand market shares.

Now let us examine some of the issues relating to grapes.

**GRAPES.** The development of vinifera and hybrid grapes has been very successful in Canada. However, the demand for red wines has weakened while the demand for white wines has increased. This has created an imbalance in red grapes, particularly De Chaunac and Foch varieties.

In order to overcome these difficulties the industry should aggressively advertise red wines produced in Canada and perhaps develop blends to help increase sales. I understand that the industry has been developing the necessary processes to use red grapes for white wine blending. Hopefully some of the red grape surplus can be used in this manner.

Demand for brandy manufacturing has also increased and an aggressive advertising campaign might prove very beneficial to the industry.

Another area that might be expanded is home wine making. More and more consumers are making their own wine. An aggressive market development strategy would likely expand this market, especially blended concentrates using these new vinifera and French hybrid grapes.

## Vegetables

In the case of vegetables, supplies are up in Canada and the United States. Production of potatoes is up but grade out due to "hollow heart" could reduce marketable supplies later in the season.

Aggressive marketing programs for potatoes and the storable vegetables (cabbages, carrots, rutabagas and onions) are necessary. New storage facilities will certainly help lengthen the marketing season and insure product quality maintenance. Grower prices are under pressure as larger supplies are available. On the other hand, lower retail prices could help increase consumption as consumers cope with the current economic situation.

## Special crops

Production of special crops is dependent to a large extent on export markets. In the case of pulse crops a coordinated market development program could benefit all growers. Domestic consumption is low and potential for expansion is very good. However, in order to expand sales domestically, consumers must be informed about pulses. An aggressive education/advertising campaign is one way to develop domestic sales. Coordinated efforts by producer groups for export market development could also be beneficial.

**BUCKWHEAT.** Reliability of supply and a quality product are key factors. Export expansion will be limited and growers must be aware of overproduction possibilities. Export demand is expected to remain steady at 30 to 35 thousand tonnes in Japan — our major export market.

**SUGAR BEETS.** Producer returns are expected to be depressed for the 1982 and 1983 crops. World prices are low as a result of the large oversupply situation. World production will have to be brought in line with demand before prices improve.

Renegotiation of the ISA will take place in 1983 and hopefully will address these problems relating to supply and demand imbalances. Canada has always taken an active role in these negotiations.

Expansion of domestic beet sugar will occur over time, primarily due to the revitalization of the Quebec industry. Grower prices will stabilize once supply is brought into line with demand worldwide.

**TOBACCO.** Flue-cured supplies are adequate worldwide except for some high-quality grades. Prices are similar to year-earlier levels and efforts are being made worldwide to reduce the rate of price increases.



Exporting countries are aggressively seeking buyers for their tobaccos. For example, the U.S. price support system has been revised to reduce the price support level. Production in 1983 is not expected to increase in the U.S. as their disappearance is down.

In Canada the CTMC and OFCTGMB have developed a marketing program to expand export markets. The continued success of this program will be dependent on international economic conditions. Export market development will continue to be a key issue for tobacco as competing countries attempt to expand their market shares.

### **Ornamentals**

Finally, I would like to touch on some of the major concerns in the ornamental horticulture sector. First, let us recap the issues facing the nursery industry. This industry has been one of the hardest hit because of the slowdown in construction (Overall dollar sales are down about 12% in 1982). Little improvement is foreseen for 1983 although a favorable weather pattern in the spring and would help demand. As the economy recovers in 1984 and 1985 sales should once again recover to 1981 levels or better.

Flexibility has saved this industry as nursery and landscape companies switched into re-landscaping

and upgrading existing houses. Also, the aggressive marketing of interior plants has helped. Another area of importance is landscaping for energy conservation.

Floriculture is another area of concern. The present economic situation in Canada has created a very cost-conscious consumer. A recent study indicated that floriculture sales are affected by three factors:

- The number of people employed;
- Industry advertising expenditures; and
- Boxed chocolate price movements.

Industry sales are likely to expand provided aggressive marketing campaigns are developed to meet customer demands. Growers, on the other hand, are very concerned about their gross margin position: especially, input costs — namely energy and labor costs. In order to reduce input costs and raise productivity, growers have adopted energy saving technology and hired well-trained full-time labor. Retail florists and wholesalers have also developed marketing programs to promote flowers for the home on a year-round basis.

### **Summary**

In conclusion, it would appear that marketing is a common concern. Market expansion in the 80's will depend on how well we meet this challenge of market development.

Thank you.

# Farm income situation (1982) and outlook (1983): provincial detail

G. Andrusiak\*

## Objective of paper

At the plenary session yesterday, Mr. Ernie Boyko released the projections for farm cash receipts, expenses and net income for 1983 at the national level. My objective today is to provide a more detailed perspective by examining these same components on a provincial basis.

## Background information for interpreting the estimates

The farm income estimates and projections presented herein are related to the farm business operation only and do not include any income that farm operators or their families may receive from other sources (wages and salaries, investment income, etc.). That is, off-farm income is excluded.

The projections are based on information available to mid-November, 1982. Subsequent changes in conditions from those existing in November can significantly alter the projections presented.

Net income projections are obtained residually after making projections of individual items of farm cash receipts, operating expenses and depreciation charges. Realized net income is approximately 20% of cash receipts and 25% of total operating expenses and depreciation charges. As a result, small changes in either receipts or expenses will have a very large impact on the projected realized net income estimates.

This point is relevant for two reasons:

- It reflects the problem associated with projecting net income; and
- It describes the very nature of financial returns to farmers. Such factors as international grain stocks and domestic interest rates (over which the producer has little control) impact strongly on net returns.

Another point essential to understanding the projections is that the data and analysis presented in this paper are aggregated for all types of farms within a province. Although the net income data for a particular province may exhibit a particular trend, not all types or sizes of farms within that province will follow the same pattern.

All material presented is in current dollars.

## How the projections are prepared

The forecasts have been coordinated by the Farm Income and Prices Section under the management of Peter Lys, one of the senior analysts. However, many other individuals in the section, in the commodity sections (Crops and Livestock), in Agriculture Canada, provincial departments of agriculture and/or statistics have had an input into the projections being presented today. Although I have the privilege of presenting these provincial projections I would like to thank the many individuals and organizations who have helped in this exercise.

## National summary

Before starting into the provincial analysis it may be useful to review the outlook at the national level.

### 1982 situation

Farm cash receipts at the Canada level are projected to be \$18.7 billion in 1982, unchanged from year-earlier levels. Total operating expenses and depreciation charges are projected to increase by 3% to a level of \$15.2 billion. As a result, realized net income is expected to fall by 9% to \$3.8 billion.

On the receipts side the only real strengths were in hogs (+20%) and dairy (+9%). A weak grains and oilseeds sector, coupled with somewhat lower cattle receipts, offset the increases in hogs and dairy.

The projection for lower cattle receipts requires some explanation. High prices for fed cattle at the start of the barbeque season this year brought A1A2 steer and heifer prices above 1981 levels. Slaughter levels for 1982 were almost equal to those in 1981, and combined, these would tend to indicate an increase in receipts. However, it is necessary to consider that there was a substantial increase in cow slaughter in 1982 and when this is taken into account the overall average price received by farmers for cattle was somewhat below 1981; and it is for this reason that a decline in total receipts from cattle sales was forthcoming.

On the expenses side several declines were also registered which helped keep the increase to 3% at the national level. The weakness in crops prices led to a decline in feed costs. The turnaround in interest rates, particularly in the latter half of 1982, reduced the cost of operating loans and, as a result, present

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indications are that interest expenses will be somewhat below 1981 levels. On a less positive note fuel costs increased substantially as Canadian prices moved closer to world levels.

### **1983 outlook**

Farm cash receipts are expected to decline in 1983 to \$18.5 billion. Farm operating expenses are also forecast to decline slightly (If this does occur this will be the first time farm expenses have declined since 1957). Realized net income is expected to remain virtually unchanged from 1982 (down from \$3.8 to \$3.7 billion).

The grains sector is expected to continue weak in 1983 and there does not appear to be much strength in livestock. On the expenses side of the ledger — fuel price increases will moderate, while interest expenses, feed and rent expenses should all decline in 1983.

## **Provincial outlook**

### **Newfoundland**

This is the first time that we have produced a projection of net income for the province of Newfoundland.

1982. Livestock products account for over 80% of Newfoundland's farm cash receipts and it was increases in this sector, particularly hogs, dairy, and poultry and eggs, that increased total farm cash receipts by 12% in 1982. Total operating expenses and depreciation charges increased 8%. Realized net income increased 42% to \$4.5 million.

1983. In 1983, cash receipts are expected to increase by 6% whereas total operating expenses and depreciation charges should remain relatively stable leading to a projected increase in realized net income of approximately 39%.

### **Prince Edward Island**

1982. Farm cash receipts in Prince Edward Island are projected to decline in 1982 primarily because of decreases in the receipts from sales of potatoes. 1981 had been an excellent year for potato producers as that portion of the 1980 crop which was marketed in the January-July 1981 period was sold at record high prices. However, this was not to be repeated in 1982 and potato prices for the 1981 and 1982 crops to date are substantially below prices prevailing in the first half of 1981. As a result, cash receipts from potatoes are expected to decline to \$58 million, a decrease of 27%. Decreases are also expected to be registered in cash receipts from sales of cattle and hogs.

Farm operating expenses and depreciation charges are expected to increase by 5% to \$133 million. The largest increase will be in fuel costs (+26%). Interest expenses were relatively stable while feed costs declined by approximately 8%.

1983. Current expectations for 1983 are not very favorable. There seems to be little hope that potato prices will rebound significantly from their low levels of this year and potato cash receipts will probably fall again in 1983 (by approximately 11%). Some improvement in total livestock and products receipts is expected. Total provincial cash receipts are currently projected to decline by about 2%. Total operating expenses and depreciation charges are expected to remain unchanged in 1983 as somewhat higher wages and machinery costs may be offset by declines in feed expenses and interest charges. As a result, realized net income is expected to decline by 7% to \$31.7 million.

### **Nova Scotia**

1982. Agriculture in Nova Scotia is oriented towards livestock production and approximately 75% of the province's total farm cash receipts come from the sales of livestock and animal products. The two major commodities, milk and hogs, fared relatively well in 1982 and farm cash receipts are expected to increase by 9% and 12% respectively for those products. As a result, total provincial farm cash receipts are expected to reach \$233 million (an increase of 6%). Farm operating expenses have increased moderately (4%) and the result is that realized net income is expected to increase by approximately 10% in 1982.

1983. Current expectations are that cattle, hog and dairy receipts will all increase somewhat in Nova Scotia in 1983. This increase should be sufficient to raise the provincial total cash receipts to a level of approximately \$242 million, an increase of 4%. Total operating expenses and depreciation charges are expected to decrease slightly by about 2% in 1983 with the result that realized net income should again increase in Nova Scotia (by approximately 25% to a level of \$62.5 million).

### **New Brunswick**

1982. Agricultural production in New Brunswick is closely related to that of Prince Edward Island and potatoes are the single most important commodity in that province. The low potato prices prevailing during 1982 and the poor quality crop will impact even more strongly on New Brunswick potato receipts than in



Prince Edward Island. Potato receipts are expected to decline by approximately \$20 million from 1981 to \$36 million, a decrease of 35%. This decline was moderated somewhat by an increase in hogs cash receipts (+34%) as higher prices and higher slaughterings were both forthcoming. Total farm cash receipts are expected to decline by 7% to a level of \$184 million.

Partly offsetting the increase in hogs receipts was feed expenditures which is expected to increase because of increased feeding and sales of hogs during 1982. Wages, total machinery costs, fertilizer and lime expenses all increased in 1982, leading to a total operating and expenses figure of \$157 million, an increase of 4% above 1981. As a result, realized net income is expected to fall to a level of \$30.5 million, a decline of 42%.

1983. Total farm cash receipts are expected to increase in New Brunswick to \$198 million, an increase of approximately 8%. It is anticipated that total livestock and animal products receipts will increase by approximately 7% and that there will be some recovery in farm cash receipts from the sales of potatoes from the relatively low level registered in 1982. Total operating expenses are expected to decline very slightly and the increase in farm cash receipts should lead to an increase in realized net income in 1983.

### Quebec

1982. In Quebec the two most important agricultural products are milk and hogs and they account for approximately 60% of total provincial farm cash receipts. Both these commodities did relatively well during 1982 with the result that total farm cash receipts at the provincial level are expected to increase to \$2.9 billion, an increase of 6%. Cash receipts from dairy products are expected to exceed \$1 billion in 1982 or roughly 40% of total Canadian farm cash receipts from dairy (net of dairy supplementary payments). Hogs receipts were up approximately 20%.

In Quebec the single most important expenditure item is feed, accounting for approximately one-third of total operating costs. In 1982, Quebec producers benefited from lower feed prices and this expenditure item declined slightly. As in other provinces, the expense item exhibiting the largest increase was fuel, increasing by approximately 23% to \$96 million. Total operating expenses and depreciation charges increased by approximately 6% during 1982. Realized net income in Quebec is therefore expected to increase by approximately 7%.

1983. Only a slight increase in total farm cash receipts is expected. Farm cash receipts from the sale of dairy products are expected to increase along with receipts from cattle and poultry sales. The anticipated weakness in prices for feed grains should be translated into another reduction in the total feed bill in Quebec in 1983. Unless there is a fairly substantial shift upwards in interest rates we should also see interest charges decline in 1983. Total operating expenses and depreciation charges are forecast to decline by about 2% in 1983. The increase in farm cash receipts coupled with a decline in expenses should produce an increase in realized net income of approximately 11%.

### Ontario

1982. During 1982, Ontario is not expected to fair as well as its neighboring province, Quebec. Total farm cash receipts are projected to decline whereas total operating expenses and depreciation charges may increase, resulting in a decline in realized net income of 12%. Although there is a tendency by agricultural specialists to compare the agriculture in the two provinces, there are several differences in agricultural production which have resulted in realized net income going in opposite directions in 1982. Although dairy products are important in Ontario and cash receipts for this item did increase in 1982, the province's largest single agricultural commodity is cattle. Farm cash receipts from the sales of cattle declined by 4% in 1982. As well, crop production in Ontario is much more important than in Quebec. In 1982 projected farm cash receipts from the sales of corn and wheat declined substantially from year-earlier levels. The decline in corn receipts stems primarily from lower prices whereas the 50% decline in wheat cash receipts was the result of lower prices, winterkill of the crop planted in the fall of 1981, and problems with disease.

The largest expense items in Ontario are feed and interest charges. Both these items declined slightly in 1982 and total operating expenses and depreciation charges declined by 2%.

1983. Total cash receipts from the sales of crops should increase in 1983, barring any further problems with disease and winterkill. Along with some increases in the receipts from cattle, hogs, dairy, poultry and eggs, overall provincial farm cash receipts are expected to increase by about 2%. Total operating expenses are expected to be relatively unchanged at the provincial level as lower interest charges, feed expenses and rent payments are expected to be offset by higher wages for hired help, higher fuel and machinery repairs costs and higher feeder cattle expenses. Realized net income is therefore projected to return to the 1981 level, an increase of 12%.



## **Manitoba**

1982. The realized net income picture in Manitoba has changed substantially in 1982 from what was projected last year. At that time it was expected that farm cash receipts would increase in 1982 (particularly for wheat as a result of the good 1981 crop) but that operating expenses and depreciation charges would increase even more, leading to a decline in realized net income. Farm cash receipts did in fact increase in 1982; however, the magnitude of the increase in operating expenses and depreciation charges was far less than had been anticipated. The result is that realized net income in 1982 is projected to increase to \$306 million.

Interest expenses, rather than rising by 20% as assumed, are not projected to decline during 1982 on the basis of the turnaround in interest rates and because of decreases in the amount borrowed. The previously projected increase in machinery repairs (15%) did not occur either. There has been large capital investment into new machinery over the past few years, so the machinery on farms at present is fairly new and apparently has not required repair to the extent that had been projected. Although these same factors were important in Saskatchewan and Alberta as well, the increase in realized net income in Manitoba, as compared to the decline in the other two provinces, can be attributed largely to the increased volume of wheat sales in Manitoba.

1983. Present indications are that total farm cash receipts will decline by approximately 3%, largely because of declines in farm cash receipts from wheat (10%). Barley receipts are also predicted to decline because of weak feed grains prices. It is expected that total operating expenses and depreciation charges will decline in Manitoba in 1983 because of decreases in rent expenses, interest charges and feed costs. The decline in land prices in recent months is the primary reason for cash rent decreases whereas low crop prices will cause the share rent item to decline.

## **Saskatchewan**

1982. Wheat is the most important commodity in Saskatchewan, generating over 50% of provincial cash receipts from farming operations, or about 60% of Canada's total wheat receipts. Cash receipts from the sale of wheat (including Canadian wheat payments) are expected to decline by 10% in 1982. Receipts from barley and rapeseed sales also may decline in 1982. The decline in crop receipts should be moderated somewhat by farmers' decreasing the

amount of income deferred from 1982 to 1983 (largely as a result of the decline in cash flow). As a result, total provincial cash receipts may decline by 4%. Fuel is a major expense for producers in Saskatchewan and fuel expenses rose by 25% during 1982. Offsetting the increase in fuel cost to some extent was a decline in fertilizer expenses as fertilizer prices were below year-earlier levels.

1983. The current outlook for grains and oilseeds in 1983 is for continued weakness on the price side, due to abundant world stocks. Unless there is some improvement in the international situation, farm cash receipts in Saskatchewan will decline approximately 4% in 1983. Farm operating expenses and depreciation charges are projected to be largely unchanged in 1983 as interest charges, rental payments and fertilizer expenses will likely decline. Fuel price increases will be far more moderate than in recent years (5%). Realized net income is expected to decline in 1983 by 15%.

## **Alberta**

1982. While Saskatchewan is predominantly a grain province, Alberta has a much larger livestock industry. Hog cash receipts increased by 20% but declines are anticipated for cattle, wheat and rapeseed receipts. As a result, total farm cash receipts could decline by 2%. Total operating expenses remained at the 1981 level. A substantial increase in fuel expenses was partly offset by decreases in share rent, interest payments, fertilizer prices and lower feed costs. Realized net income will fall by 11% to a level of \$762 million, if the receipts and expenses projections are realized.

1983. The international situation for grain prices indicates that some further declines in grain cash receipts in 1983 are likely. The increase in hog prices which occurred in 1982 is not likely to be repeated and receipts are anticipated to be relatively stable. Although cattle prices may increase somewhat, total farm cash receipts are projected to decline by about 5%. On the expenses side, fuel price increases will be moderate and interest and feed costs should decline. Provincial level expenses should be down slightly (2%) but the greater decline in receipts is projected to cause realized net income to decline again.

## **British Columbia**

1982. Agricultural production in British Columbia is significantly different from that of the Prairies Provinces. Fruits, vegetables, dairy products and hogs are major components of receipts in B.C. Cash receipts in British Columbia are projected to increase about \$30 million in 1982 over 1981 levels (an increase of approximately 3%). Current indications are that

operating expenses and depreciation charges increased only slightly in 1982. One year ago the projection was for a large increase in expenses, primarily in interest charges. However, the decline in interest rates in 1982 helped moderate expense increases. Realized net income is projected to have increased 17% in 1982.

1983. Farm cash receipts are expected to increase for fruits, vegetables, cattle, dairy products and poultry. Expenses are expected to decline because of falling interest charges and feed costs. Realized net income should therefore increase again in 1983.

## Summary

Realized net farm income is projected to decrease in 1982 at the national level by approximately 9% to \$3.8 billion. Increases were registered in Newfoundland, Nova Scotia, Quebec, Manitoba and British Columbia. Realized net income declined substantially in Prince Edward Island and New Brunswick largely because of low potato prices. Declines in Saskatchewan and Alberta resulted primarily because of the weak grains and oilseeds sector. The decline in realized net income in Ontario was due to low wheat receipts and lower corn prices and a decline in cattle cash receipts.

Present indications for 1983 are that both total cash receipts and total operating expenses and depreciation charges will decline, leaving realized net farm income at approximately the same level as in 1982. Realized net income in Manitoba, Saskatchewan and Alberta is expected to decline because of large grain stocks internationally and the resulting effect on grain prices. An added component in the province of Alberta is the relatively weak cattle sector. Realized

net income in New Brunswick should recover somewhat from the low level of 1982 although it will not reach the high achieved in 1981. Nova Scotia and Quebec realized net income should increase on the basis of increased receipts for hogs and dairy in those provinces combined with decreasing expenses. Realized net income in P.E.I. will likely decline slightly in 1983 if there is not some recovery in potato prices. Lower operating expenses and some increases in receipts should combine to increase realized net income in Newfoundland in 1983. For the province of Ontario a return to more normal receipt levels for winter wheat combined with some very moderate increases in other cash receipts items and some declining operating expenses should produce an increase of 12% in realized net income.

FIGURE 1. CANADA

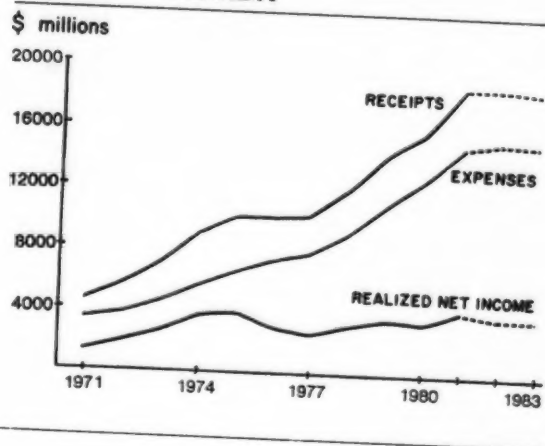


FIGURE 2. NEWFOUNDLAND

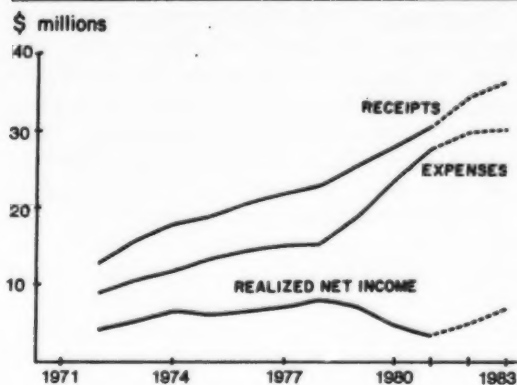


FIGURE 3. NEWFOUNDLAND

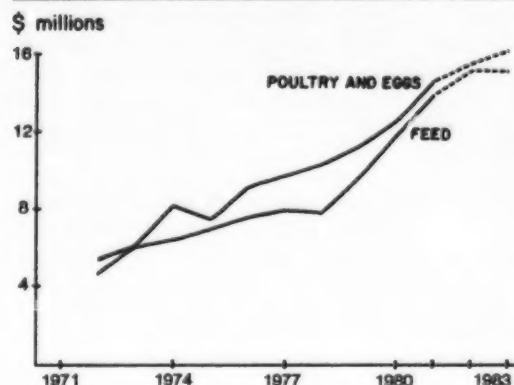


FIGURE 4. PRINCE EDWARD ISLAND

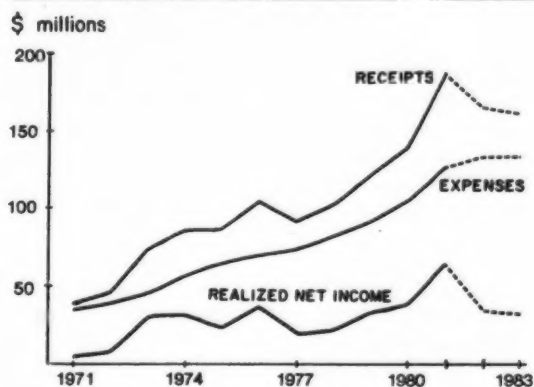


FIGURE 5. PRINCE EDWARD ISLAND

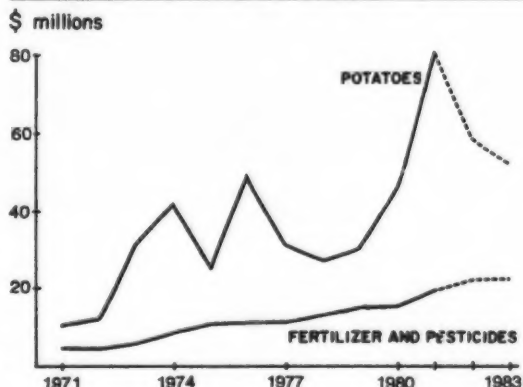


FIGURE 6. NOVA SCOTIA

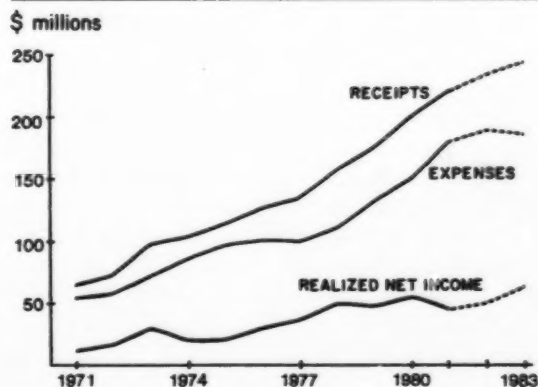


FIGURE 7. NOVA SCOTIA

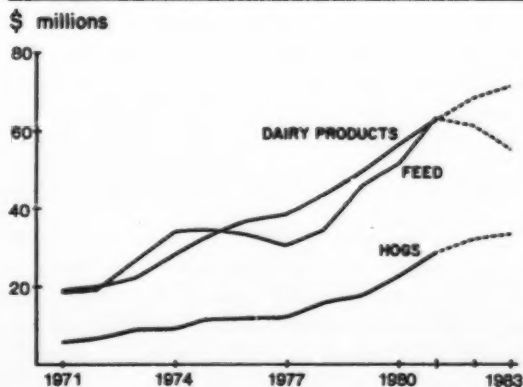


FIGURE 8. NEW BRUNSWICK

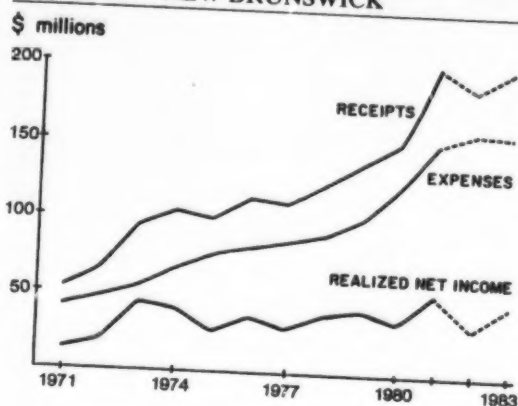


FIGURE 9. NEW BRUNSWICK

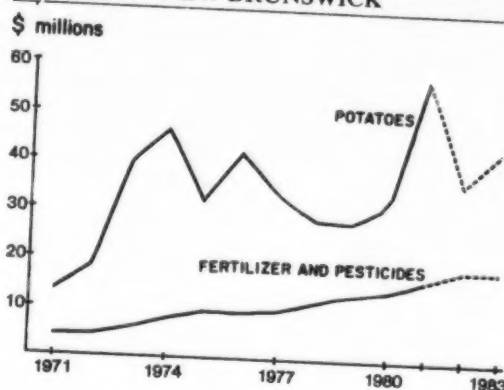


FIGURE 10. QUEBEC

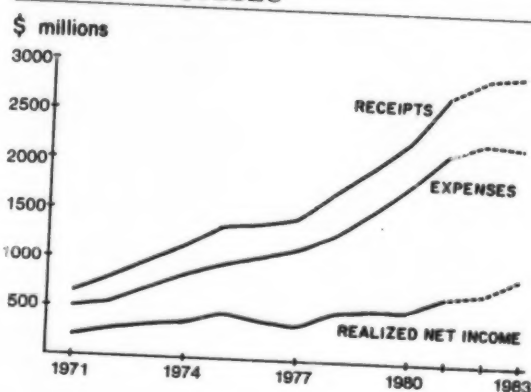


FIGURE 11. QUEBEC

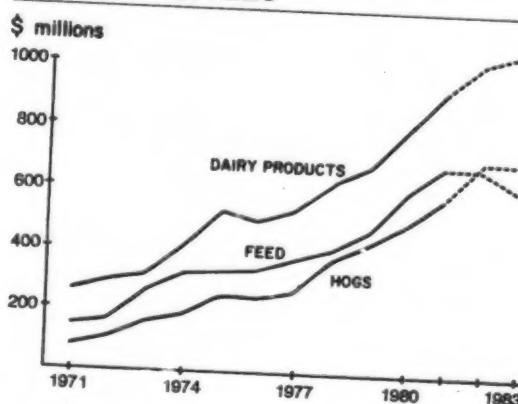


FIGURE 12. ONTARIO

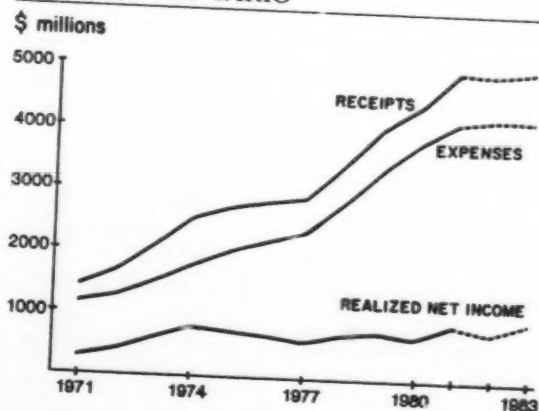


FIGURE 13. ONTARIO

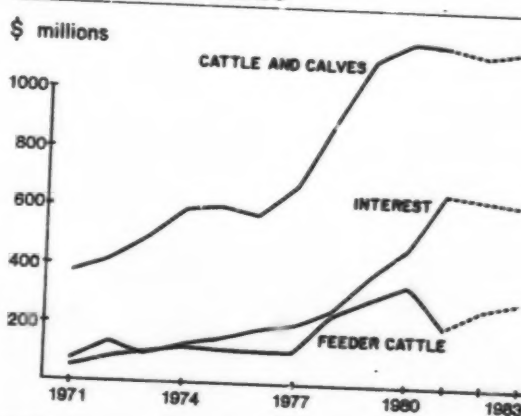




FIGURE 14. MANITOBA

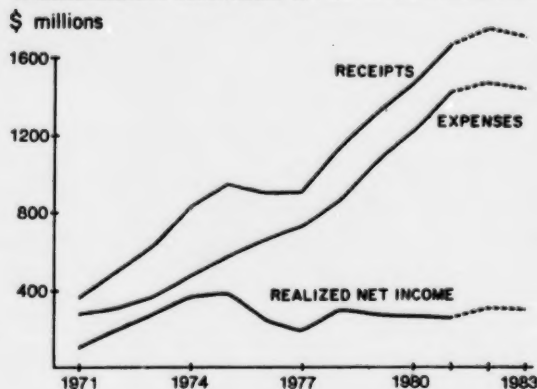


FIGURE 15. MANITOBA

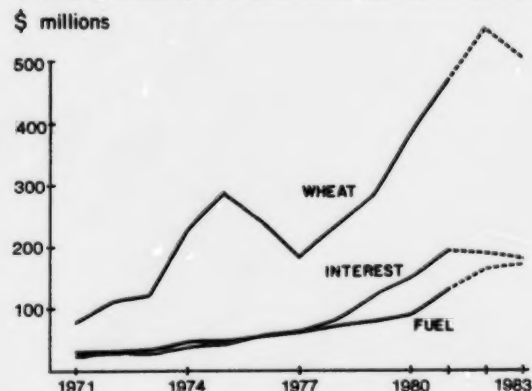


FIGURE 16. SASKATCHEWAN

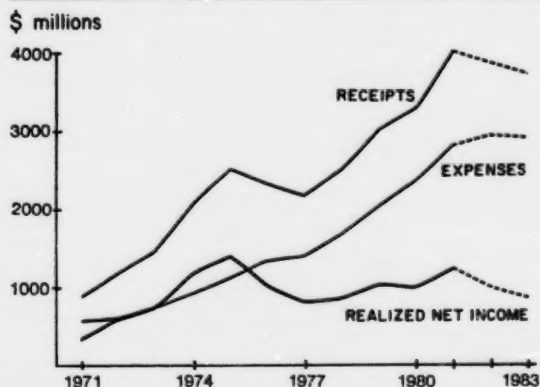


FIGURE 17. SASKATCHEWAN

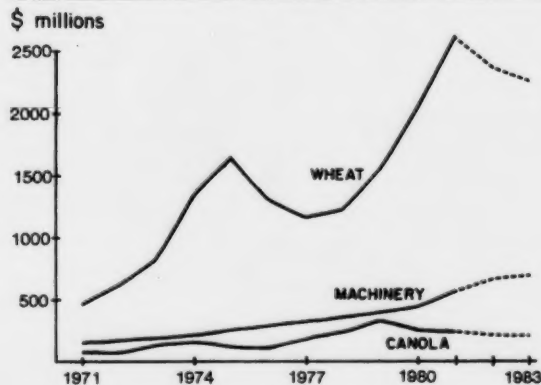


FIGURE 18. ALBERTA

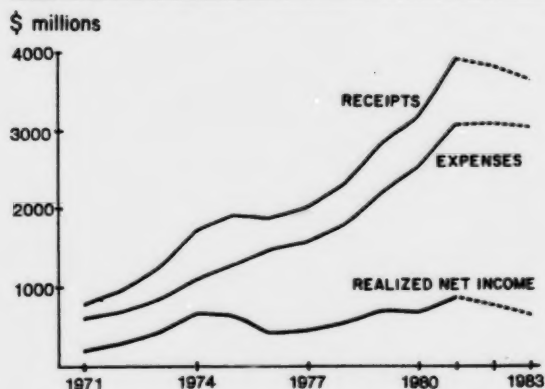


FIGURE 19. ALBERTA

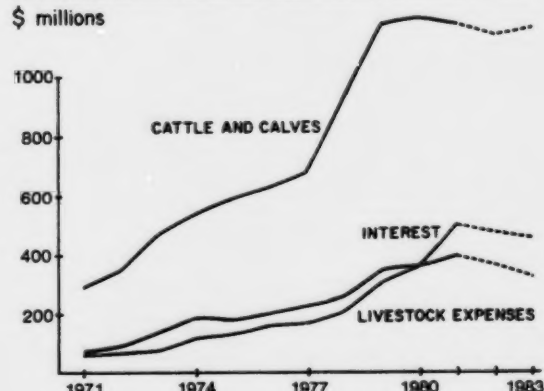


FIGURE 20. BRITISH COLUMBIA

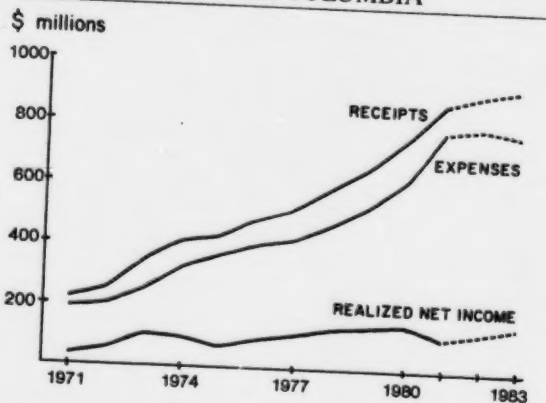


FIGURE 21. BRITISH COLUMBIA

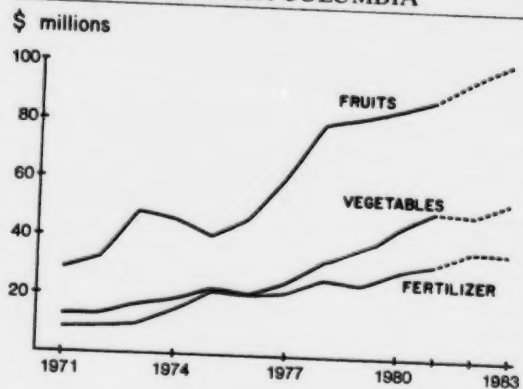


FIGURE 22. REALIZED NET INCOME, 1982 AND (1983)

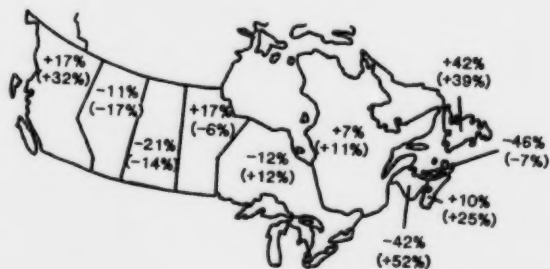


TABLE 1. FARM CASH RECEIPTS 1981 TO 1983, CANADA<sup>7</sup>

|                                                                   | 1981     | 1982         | 1983     |
|-------------------------------------------------------------------|----------|--------------|----------|
|                                                                   |          | (\$ million) |          |
| Wheat <sup>1,5</sup>                                              | 4 404.2  | 3 943.9      |          |
| Oats <sup>1</sup>                                                 | 57.1     | 59.7         |          |
| Barley <sup>1</sup>                                               | 921.3    | 911.0        |          |
| Crop ins., advances, deferments,<br>& WGSAs payments <sup>2</sup> | 115.9    | 416.6        |          |
| Rye                                                               | 75.5     | 62.1         |          |
| Flaxseed                                                          | 126.7    | 117.4        |          |
| Rapeseed                                                          | 592.6    | 511.8        |          |
| Soybeans                                                          | 163.8    | 172.8        |          |
| Corn                                                              | 432.4    | 387.9        |          |
| Sugar beets                                                       | 60.4     | 31.0         |          |
| Potatoes                                                          | 304.8    | 246.9        |          |
| Fruits                                                            | 231.6    | 262.8        |          |
| Vegetables                                                        | 407.4    | 438.4        |          |
| Tobacco <sup>3</sup>                                              | 380.3    | 370.1        |          |
| Other crops <sup>6</sup>                                          | 731.2    | 675.0        |          |
| Total crops                                                       | 9 005.2  | 8 607.4      | 8 367.4  |
| Cattle and calves                                                 | 3 534.5  | 3 500.3      |          |
| Hogs                                                              | 1 630.7  | 1 956.1      |          |
| Sheep and lambs                                                   | 26.4     | 28.5         |          |
| Dairy products                                                    | 2 378.9  | 2 589.3      |          |
| Poultry                                                           | 781.4    | 771.2        |          |
| Eggs                                                              | 470.3    | 455.6        |          |
| Other livestock and products                                      | 172.1    | 182.2        |          |
| Total livestock and products                                      | 8 994.3  | 9 483.2      | 9 700.1  |
| Other cash receipts <sup>4</sup>                                  | 555.6    | 458.3        | 408.6    |
| Cash receipts from farming operations                             | 18 555.1 | 18 548.9     | 18 476.1 |
| Supplementary payments                                            | 156.5    | 162.1        |          |
| Total cash receipts                                               | 18 711.6 | 18 711.0     | 18 476.1 |

Footnotes follow last table.

TABLE 1A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, CANADA<sup>7</sup>

|                                                             | 1981     | 1982         | 1983     |
|-------------------------------------------------------------|----------|--------------|----------|
|                                                             |          | (\$ million) |          |
| Taxes <sup>a</sup>                                          | 226.2    | 244.6        |          |
| Gross farm rent                                             |          | 633.8        |          |
| Wages to farm labor                                         | 1 073.3  | 1 138.3      |          |
| Interest on indebtedness <sup>b</sup>                       | 2 266.7  | 2 228.1      |          |
| Total machinery expenses <sup>c</sup>                       | 2 055.0  | 2 362.8      |          |
| Fertilizer and lime                                         | 1 095.6  | 1 055.3      |          |
| Other crop expenses <sup>d</sup>                            | 883.6    | 944.5        |          |
| Feed <sup>e</sup>                                           | 2 079.6  | 2 001.3      |          |
| Other livestock expenses <sup>f</sup>                       | 546.3    | 610.8        |          |
| Repairs to buildings <sup>a</sup>                           | 251.2    | 273.3        |          |
| Electricity and telephone                                   | 293.9    | 325.8        |          |
| Miscellaneous <sup>g</sup>                                  | 954.0    | 1 046.7      |          |
| Total operating expenses                                    | 12 348.4 | 12 865.3     | 12 712.1 |
| Depreciation on buildings                                   | 450.5    | 456.1        | 451.6    |
| Depreciation on machinery                                   | 2 013.2  | 1 869.4      | 1 850.7  |
| Total operating expenses and<br>depreciation charges        | 14 812.1 | 15 190.8     | 15 014.4 |
| <i>Income of farm operators from<br/>farming operations</i> |          |              |          |
| Cash receipts                                               | 18 711.6 | 18 711.0     | 18 476.1 |
| Income-in-kind <sup>h</sup>                                 | 270.5    | 261.5        | 268.0    |
| Realized gross income (1 + 2)                               | 18 982.1 | 18 972.5     | 18 744.1 |
| Operating & depreciation charges                            | 14 812.1 | 15 190.8     | 15 014.4 |
| Realized net income (3 - 4)                                 | 4 170.0  | 3 781.7      | 3 729.7  |
| Value of inventory changes                                  | 792.5    | 114.4        |          |
| Total gross income (3 + 6)                                  | 19 774.6 | 19 086.9     |          |
| Total net income (7 - 4)                                    | 4 962.5  | 3 896.1      |          |

Footnotes follow last table.

TABLE 2. FARM CASH RECEIPTS 1981 TO 1983, NEWFOUNDLAND

|                                                                   | 1981         | 1982 | 1983 |
|-------------------------------------------------------------------|--------------|------|------|
|                                                                   | (\$ million) |      |      |
| Wheat                                                             | -            | -    | -    |
| Oats <sup>1</sup>                                                 | -            | -    | -    |
| Barley <sup>1</sup>                                               | -            | -    | -    |
| Crop ins., advances, deferments,<br>& WGSAs payments <sup>2</sup> | -            | -    | -    |
| Rye                                                               | -            | -    | -    |
| Flaxseed                                                          | -            | -    | -    |
| Rapeseed                                                          | -            | -    | -    |
| Soybeans                                                          | -            | -    | -    |
| Corn                                                              | -            | -    | -    |
| Sugar beets                                                       | -            | -    | -    |
| Potatoes                                                          | -            | -    | -    |
| Fruits                                                            | 0.5          | 0.4  | -    |
| Vegetables                                                        | 0.5          | 0.9  | -    |
| Tobacco                                                           | 1.6          | 1.8  | -    |
| Other crops <sup>6</sup>                                          | -            | -    | -    |
| Total crops                                                       | 2.7          | 2.7  | -    |
| Cattle and calves                                                 | 5.3          | 5.8  | -    |
| Hogs                                                              | 1.4          | 1.2  | 5.9  |
| Sheep and lambs                                                   | 3.9          | 5.0  | -    |
| Dairy products                                                    | 0.1          | 0.1  | -    |
| Poultry                                                           | 5.0          | 6.0  | -    |
| Eggs                                                              | 6.9          | 8.0  | -    |
| Other livestock and products                                      | 7.7          | 7.5  | -    |
| Total livestock and products                                      | -            | 0.3  | -    |
| Other cash receipts <sup>4</sup>                                  | 25.0         | 28.1 | 30.1 |
| Cash Receipts from farming operations                             | -            | -    | -    |
| Supplementary payments                                            | 30.3         | 33.9 | 36.0 |
| Total cash receipts                                               | -            | -    | -    |
|                                                                   | 30.3         | 33.9 | 36.9 |

Footnotes follow last table.

TABLE 2A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, NEWFOUNDLAND

|                                                      | 1981         | 1982 | 1983 |
|------------------------------------------------------|--------------|------|------|
|                                                      | (\$ million) |      |      |
| Taxes <sup>a</sup>                                   | -            | -    | -    |
| Gross farm rent                                      | -            | -    | -    |
| Wages To farm labor                                  | 0.1          | 0.1  | -    |
| Interest on indebtedness <sup>b</sup>                | 3.8          | 4.2  | -    |
| Total machinery expenses <sup>c</sup>                | 1.5          | 1.5  | -    |
| Fertilizer and lime                                  | 1.8          | 2.1  | -    |
| Other crop expenses <sup>d</sup>                     | 1.0          | 1.1  | -    |
| Feed <sup>e</sup>                                    | 0.8          | 0.8  | -    |
| Other livestock expenses <sup>f</sup>                | 13.8         | 15.1 | -    |
| Repairs to buildings <sup>g</sup>                    | 0.1          | 0.1  | -    |
| Electricity and telephone                            | 0.4          | 0.4  | -    |
| Miscellaneous                                        | 0.7          | 0.7  | -    |
| Total operating expenses                             | 1.4          | 1.5  | -    |
| Depreciation on buildings                            | 25.4         | 27.6 | 28.0 |
| Depreciation on machinery                            | 0.8          | 0.7  | 0.8  |
| Total operating expenses and<br>depreciation charges | 1.3          | 1.5  | 1.3  |
| Income of farm operators from<br>farming operations  | 27.5         | 29.8 | 30.1 |
| Cash receipts                                        | -            | -    | -    |
| Income-in-kind <sup>h</sup>                          | 30.3         | 33.9 | 36.0 |
| Realized gross income (1 + 2)                        | 0.4          | 0.4  | 0.4  |
| Operating & depreciation charges                     | 30.7         | 34.3 | 36.4 |
| Realized net income (3 - 4)                          | 27.5         | 29.8 | 30.1 |
| Value of inventory changes                           | 3.2          | 4.5  | 6.3  |
| Total gross income (3 + 6)                           | -            | -    | -    |
| Total net income (7 - 4)                             | 30.7         | 34.3 | -    |
|                                                      | 3.2          | 4.5  | -    |

Footnotes follow last table.



TABLE 3. FARM CASH RECEIPTS 1981 TO 1983, PRINCE EDWARD ISLAND

|                                                                  | 1981  | 1982         | 1983  |
|------------------------------------------------------------------|-------|--------------|-------|
|                                                                  |       | (\$ million) |       |
| Wheat                                                            | 0.4   | 0.3          |       |
| Oats <sup>1</sup>                                                | 0.8   | 0.6          |       |
| Barley                                                           | 2.5   | 2.2          |       |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | ?     | 2.5          |       |
| Rye                                                              | -     | -            |       |
| Flaxseed                                                         | -     | -            |       |
| Rapeseed                                                         | -     | -            |       |
| Soybeans                                                         | -     | -            |       |
| Corn                                                             | -     | -            |       |
| Sugar beets                                                      | -     | -            |       |
| Potatoes                                                         | 79.2  | 58.1         |       |
| Fruits                                                           | 0.7   | 1.5          |       |
| Vegetables                                                       | 4.0   | 4.7          |       |
| Tobacco <sup>3</sup>                                             | -     | -            |       |
| Other crops <sup>6</sup>                                         | 15.5  | 16.5         |       |
| Total crops                                                      | 105.6 | 86.4         | 82.7  |
| Cattle and calves                                                | 16.9  | 16.0         |       |
| Hogs                                                             | 22.4  | 21.7         |       |
| Sheep and lambs                                                  | 0.2   | 0.2          |       |
| Dairy products                                                   | 26.6  | 29.2         |       |
| Poultry                                                          | 0.2   | 0.1          |       |
| Eggs                                                             | 2.7   | 2.8          |       |
| Other livestock and products                                     | 1.7   | 2.3          |       |
| Total livestock and products                                     | 70.7  | 72.3         | 73.3  |
| Other cash receipts <sup>4</sup>                                 | 10.5  | 5.6          | 5.2   |
| Cash receipts from farming operations                            | 186.8 | 164.3        | 161.2 |
| Supplementary payments                                           | -     | -            |       |
| Total cash receipts                                              | 186.8 | 164.3        | 161.2 |

Footnotes follow last table.

TABLE 3A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, PRINCE EDWARD ISLAND

|                                                             | 1981  | 1982         | 1983  |
|-------------------------------------------------------------|-------|--------------|-------|
|                                                             |       | (\$ million) |       |
| Taxes <sup>a</sup>                                          | 1.2   | 1.3          |       |
| Gross farm rent                                             | 2.5   | 2.8          |       |
| Wages to farm labor                                         | 15.0  | 16.6         |       |
| Interest on indebtedness <sup>b</sup>                       | 13.5  | 13.5         |       |
| Total machinery expenses <sup>c</sup>                       | 18.5  | 21.2         |       |
| Fertilizer and lime                                         | 15.8  | 15.9         |       |
| Other crop expenses <sup>d</sup>                            | 10.1  | 11.1         |       |
| Feeds <sup>e</sup>                                          | 18.0  | 16.6         |       |
| Other livestock expenses <sup>f</sup>                       | 2.3   | 3.0          |       |
| Repairs to buildings <sup>g</sup>                           | 2.3   | 2.5          |       |
| Electricity and telephone                                   | 3.2   | 3.4          |       |
| Miscellaneous <sup>h</sup>                                  | 7.7   | 8.1          |       |
| Total operating expenses                                    | 110.1 | 116.0        | 115.7 |
| Depreciation on buildings                                   | 2.2   | 2.3          | 2.3   |
| Depreciation on machinery                                   | 14.2  | 14.9         | 14.8  |
| Total operating expenses and<br>depreciation charges        | 126.5 | 133.2        | 132.8 |
| <i>Income of farm operators from<br/>farming operations</i> |       |              |       |
| Cash receipts                                               | 186.8 | 164.3        | 161.2 |
| Income-in-kind <sup>b</sup>                                 | 3.3   | 3.2          | 3.3   |
| Realized gross income (1 + 2)                               | 190.1 | 167.5        | 164.5 |
| Operating & depreciation charges                            | 126.5 | 133.2        | 132.8 |
| Realized net income (3 - 4)                                 | 63.6  | 34.3         | 31.7  |
| Value of inventory changes                                  | 26.0  | -5.0         |       |
| Total gross income (3 + 6)                                  | 216.1 | 162.5        |       |
| Total net income (7 - 4)                                    | 89.6  | 29.3         |       |

Footnotes follow last table.

TABLE 4. FARM CASH RECEIPTS 1981 TO 1983, NOVA SCOTIA

|                                                                  | 1981  | 1982         | 1983  |
|------------------------------------------------------------------|-------|--------------|-------|
|                                                                  |       | (\$ million) |       |
| Wheat                                                            |       |              |       |
| Oats <sup>1</sup>                                                | 0.9   | 0.8          |       |
| Barley                                                           | 0.2   | 0.2          |       |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 0.1   | 0.2          |       |
| Rye                                                              | 0.2   | 0.1          |       |
| Flaxseed                                                         | -     | -            |       |
| Rapeseed                                                         | -     | -            |       |
| Soybeans                                                         | -     | -            |       |
| Corn                                                             | -     | -            |       |
| Sugar beets                                                      | -     | -            |       |
| Potatoes                                                         | -     | -            |       |
| Fruits                                                           | 2.4   | 3.9          |       |
| Vegetables                                                       | 18.2  | 21.4         |       |
| Tobacco <sup>3</sup>                                             | 6.6   | 6.9          |       |
| Other crops <sup>6</sup>                                         | -     | -            |       |
| Total crops                                                      | 13.4  | 13.2         |       |
| Cattle and calves                                                | 42.0  | 46.7         |       |
| Hogs                                                             | 22.5  | 22.3         | 49.9  |
| Sheep and lambs                                                  | 28.4  | 31.8         |       |
| Dairy products                                                   | 1.3   | 1.2          |       |
| Poultry                                                          | 62.6  | 68.0         |       |
| Eggs                                                             | 24.7  | 24.8         |       |
| Other livestock and products                                     | 19.3  | 18.6         |       |
| Total livestock and products                                     | 10.3  | 11.4         |       |
| Other cash receipts <sup>4</sup>                                 | 169.1 | 178.1        | 185.7 |
| Cash receipts from farming operations                            | 9.5   | 8.3          | 7.0   |
| Supplementary payments                                           | 220.6 | 233.1        | 242.6 |
| Total cash receipts                                              | -     | -            | -     |
|                                                                  | 220.6 | 233.1        | 242.6 |

Footnotes follow last table.

TABLE 4A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, NOVA SCOTIA

|                                                      | 1981  | 1982         | 1983  |
|------------------------------------------------------|-------|--------------|-------|
|                                                      |       | (\$ million) |       |
| Taxes <sup>a</sup>                                   |       |              |       |
| Gross farm rent                                      | 1.8   | 1.9          |       |
| Wages to farm labor                                  | 1.3   | 1.3          |       |
| Interest on indebtedness <sup>b</sup>                | 25.3  | 27.8         |       |
| Total machinery expenses <sup>c</sup>                | 14.1  | 14.7         |       |
| Fertilizer and lime                                  | 18.9  | 22.0         |       |
| Other crop expenses <sup>d</sup>                     | 7.6   | 7.9          |       |
| Feeds <sup>e</sup>                                   | 7.7   | 8.1          |       |
| Other livestock expenses <sup>f</sup>                | 62.9  | 60.8         |       |
| Repairs to buildings <sup>g</sup>                    | 3.4   | 4.2          |       |
| Electricity and telephone                            | 3.7   | 4.0          |       |
| Miscellaneous <sup>h</sup>                           | 4.4   | 4.6          |       |
| Total operating expenses                             | 9.7   | 10.5         |       |
| Depreciation on buildings                            | 160.8 | 167.8        | 165.0 |
| Depreciation on machinery                            | 5.7   | 5.7          | 5.7   |
| Total operating expenses and<br>depreciation charges | 14.0  | 14.8         | 14.5  |
| Income of farm operators from<br>farming operations  | 180.5 | 188.3        | 185.2 |
| Cash receipts                                        |       |              |       |
| Income-in-kind <sup>b</sup>                          | 220.6 | 233.1        | 242.6 |
| Realized gross income (1 + 2)                        | 5.2   | 5.1          | 5.2   |
| Operating & depreciation charges                     | 225.8 | 238.2        | 247.8 |
| Realized net income (3 - 4)                          | 180.5 | 188.3        | 185.2 |
| Value of inventory changes                           | 45.3  | 49.9         | 62.6  |
| Total gross income (3 + 6)                           | 2.1   | 1.1          |       |
| Total net income (7 - 4)                             | 227.9 | 239.3        |       |
|                                                      | 47.4  | 51.0         |       |

Footnotes follow last table.

TABLE 5. FARM CASH RECEIPTS 1981 TO 1983, NEW BRUNSWICK

|                                                                  | 1981  | 1982         | 1983  |
|------------------------------------------------------------------|-------|--------------|-------|
|                                                                  |       | (\$ million) |       |
| Wheat                                                            | 0.4   | 0.4          |       |
| Oats <sup>1</sup>                                                | 1.5   | 1.4          |       |
| Barley                                                           | 0.5   | 0.4          |       |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 0.4   | 1.0          |       |
| Rye                                                              | -     | -            |       |
| Flaxseed                                                         | -     | -            |       |
| Rapeseed                                                         | -     | -            |       |
| Soybeans                                                         | -     | -            |       |
| Corn                                                             | -     | -            |       |
| Sugar beets                                                      | -     | -            |       |
| Potatoes                                                         | 57.3  | 36.9         |       |
| Fruits                                                           | 4.8   | 6.7          |       |
| Vegetables                                                       | 6.6   | 7.4          |       |
| Tobacco <sup>3</sup>                                             | -     | -            |       |
| Other crops <sup>6</sup>                                         | 9.0   | 6.7          |       |
| Total crops                                                      | 80.5  | 60.9         | 67.4  |
| Cattle and calves                                                | 20.0  | 20.6         |       |
| Hogs                                                             | 14.0  | 18.8         |       |
| Sheep and lambs                                                  | 0.5   | 0.5          |       |
| Dairy products                                                   | 37.9  | 43.7         |       |
| Poultry                                                          | 18.8  | 17.5         |       |
| Eggs                                                             | 11.4  | 10.8         |       |
| Other livestock and products                                     | 2.9   | 3.5          |       |
| Total livestock and products                                     | 105.5 | 115.4        | 123.3 |
| Other cash receipts <sup>4</sup>                                 | 11.5  | 7.5          | 7.2   |
| Cash receipts from farming operations                            | 197.5 | 183.8        | 197.9 |
| Supplementary payments                                           | -     | -            |       |
| Total cash receipts                                              | 197.5 | 183.8        | 197.9 |

Footnotes follow last table.

TABLE 5A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, NEW BRUNSWICK

|                                                             | 1981  | 1982         | 1983  |
|-------------------------------------------------------------|-------|--------------|-------|
|                                                             |       | (\$ million) |       |
| Taxes <sup>a</sup>                                          | 1.9   | 2.0          |       |
| Gross farm rent                                             | 0.8   | 0.9          |       |
| Wages To farm labor                                         | 17.4  | 19.2         |       |
| Interest on indebtedness <sup>b</sup>                       | 17.6  | 16.8         |       |
| Total machinery expenses <sup>c</sup>                       | 21.4  | 24.4         |       |
| Fertilizer and lime                                         | 12.0  | 12.7         |       |
| Other crop expenses <sup>d</sup>                            | 9.6   | 10.5         |       |
| Feed <sup>e</sup>                                           | 36.0  | 36.2         |       |
| Other livestock expenses <sup>f</sup>                       | 2.2   | 2.3          |       |
| Repairs to buildings <sup>g</sup>                           | 3.0   | 3.3          |       |
| Electricity and telephone                                   | 3.8   | 4.0          |       |
| Miscellaneous <sup>h</sup>                                  | 5.7   | 6.4          |       |
| Total operating expenses                                    | 131.4 | 138.7        | 137.5 |
| Depreciation on buildings                                   | 3.0   | 3.1          | 3.1   |
| Depreciation on machinery                                   | 15.0  | 15.6         | 15.4  |
| Total operating expenses and<br>depreciation charges        | 149.4 | 157.4        | 156.0 |
| <i>Income of farm operators from<br/>farming operations</i> |       |              |       |
| Cash receipts                                               | 197.5 | 183.8        | 197.9 |
| Income-in-kind <sup>b</sup>                                 | 4.3   | 4.0          | 4.1   |
| Realized gross income (1 + 2)                               | 201.8 | 187.8        | 202.0 |
| Operating & depreciation charges                            | 149.4 | 157.4        | 156.0 |
| Realized net income (3 - 4)                                 | 52.4  | 30.4         | 46.0  |
| Value of inventory changes                                  | 9.6   | 0.1          |       |
| Total gross income (3 + 6)                                  | 211.4 | 187.9        |       |
| Total net income (7 - 4)                                    | 62.0  | 30.5         |       |

Footnotes follow last table.

TABLE 6. FARM CASH RECEIPTS 1981 TO 1983, QUEBEC

|                                                                  | 1981    | 1982         | 1983    |
|------------------------------------------------------------------|---------|--------------|---------|
|                                                                  |         | (\$ million) |         |
| Wheat                                                            |         |              |         |
| Oats <sup>1</sup>                                                | 5.7     | 9.8          |         |
| Barley                                                           | 5.9     | 8.6          |         |
| Crop Ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 7.7     | 17.0         |         |
| Rye                                                              | 7.0     | 15.0         |         |
| Flaxseed                                                         | -       | -            |         |
| Rapeseed                                                         | -       | -            |         |
| Soybeans                                                         | -       | -            |         |
| Corn                                                             | -       | -            |         |
| Sugar beets                                                      | 67.0    | 66.0         |         |
| Potatoes                                                         | 2.8     | 3.3          |         |
| Fruits                                                           | 47.6    | 35.0         |         |
| Vegetables                                                       | 27.0    | 32.1         |         |
| Tobacco <sup>3</sup>                                             | 81.4    | 81.0         |         |
| Other crops <sup>6</sup>                                         | 18.6    | 23.5         |         |
| Total crops                                                      | 72.7    | 65.8         |         |
| Cattle and calves                                                | 343.4   | 357.1        | 339.8   |
| Hogs                                                             | 268.8   | 275.7        |         |
| Sheep and lambs                                                  | 576.2   | 693.2        |         |
| Dairy products                                                   | 1.9     | 2.2          |         |
| Poultry                                                          | 926.1   | 1 015.3      |         |
| Eggs                                                             | 229.3   | 245.2        |         |
| Other livestock and products                                     | 82.5    | 79.6         |         |
| Total livestock and products                                     | 25.8    | 26.9         |         |
| Other cash receipts <sup>4</sup>                                 | 2 110.6 | 2 338.1      | 2 396.1 |
| Cash receipts from farming operations                            | 258.8   | 190.6        | 183.7   |
| Supplementary payments                                           | 2 712.8 | 2 885.8      | 2 919.6 |
| Total cash receipts                                              | -       | -            |         |
|                                                                  | 2 712.8 | 2 885.8      | 2 919.6 |

Footnotes follow last table.

TABLE 6A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, QUEBEC

|                                                      | 1981    | 1982         | 1983    |
|------------------------------------------------------|---------|--------------|---------|
|                                                      |         | (\$ million) |         |
| Taxes <sup>a</sup>                                   |         |              |         |
| Gross farm rent                                      | 32.1    | 34.9         |         |
| Wages to farm labor                                  | 14.9    | 15.6         |         |
| Interest on indebtedness <sup>b</sup>                | 154.3   | 165.1        |         |
| Total machinery expenses <sup>c</sup>                | 284.1   | 299.7        |         |
| Fertilizer and lime                                  | 190.8   | 221.2        |         |
| Other crop expenses <sup>d</sup>                     | 131.8   | 136.8        |         |
| Feeds <sup>e</sup>                                   | 101.6   | 106.1        |         |
| Other livestock expenses <sup>f</sup>                | 680.4   | 671.4        |         |
| Repairs to buildings <sup>a</sup>                    | 55.8    | 65.1         |         |
| Electricity and telephone                            | 50.6    | 58.9         |         |
| Miscellaneous <sup>g</sup>                           | 60.5    | 72.6         |         |
| Total operating expenses                             | 138.2   | 155.9        |         |
| Depreciation on buildings                            | 1 895.1 | 2 003.3      | 1 963.2 |
| Depreciation on machinery                            | 43.6    | 44.7         | 44.2    |
| Total operating expenses and<br>depreciation charges | 182.6   | 192.2        | 190.4   |
| Income of farm operators from<br>farming operations  | 2 121.3 | 2 240.2      | 2 197.8 |
| Cash receipts                                        |         |              |         |
| Income-in-kind <sup>h</sup>                          | 2 712.8 | 2 885.8      | 2 919.6 |
| Realized gross income (1 + 2)                        | 75.6    | 71.1         | 73.4    |
| Operating & depreciation charges                     | 2 788.4 | 2 956.9      | 2 993.0 |
| Realized net income (3 - 4)                          | 2 121.3 | 2 240.2      | 2 197.8 |
| Value of inventory changes                           | 667.1   | 716.7        | 795.2   |
| Total gross income (3 + 6)                           | 17.0    | -51.3        |         |
| Total net income (7 - 4)                             | 2 805.4 | 2 905.6      |         |
|                                                      | 684.1   | 665.4        |         |

Footnotes follow last table.



TABLE 7. FARM CASH RECEIPTS 1981 TO 1983, ONTARIO

|                                                                  | 1981    | 1982         | 1983    |
|------------------------------------------------------------------|---------|--------------|---------|
|                                                                  |         | (\$ million) |         |
| Wheat <sup>5</sup>                                               | 134.2   | 63.2         |         |
| Oats <sup>1</sup>                                                | 2.8     | 2.2          |         |
| Barley                                                           | 14.8    | 14.1         |         |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 18.5    | 30.0         |         |
| Rye                                                              | 1.1     | 1.1          |         |
| Flaxseed                                                         | -       | -            |         |
| Rapeseed                                                         | -       | -            |         |
| Soybeans                                                         | 163.8   | 172.8        |         |
| Corn                                                             | 346.6   | 292.9        |         |
| Sugar beets                                                      | -       | -            |         |
| Potatoes                                                         | 44.6    | 41.3         |         |
| Fruits                                                           | 88.8    | 104.1        |         |
| Vegetables                                                       | 231.6   | 261.4        |         |
| Tobacco <sup>3</sup>                                             | 361.8   | 346.6        |         |
| Other crops <sup>6</sup>                                         | 340.0   | 332.2        |         |
| Total crops                                                      | 1 748.6 | 1 661.9      | 1 716.6 |
| Cattle and calves                                                | 1 162.0 | 1 125.3      |         |
| Hogs                                                             | 527.0   | 648.0        |         |
| Sheep and lambs                                                  | 10.5    | 11.7         |         |
| Dairy products                                                   | 805.4   | 853.1        |         |
| Poultry                                                          | 274.7   | 251.5        |         |
| Eggs                                                             | 175.0   | 175.2        |         |
| Other livestock and products                                     | 49.7    | 51.8         |         |
| Total livestock and products                                     | 3 004.3 | 3 116.6      | 3 174.8 |
| Other cash receipts <sup>4</sup>                                 | 150.4   | 113.3        | 101.0   |
| Cash receipts from farming operations                            | 4 903.3 | 4 891.8      | 4 992.4 |
| Supplementary payments                                           | 50.1    | 20.5         |         |
| Total cash receipts                                              | 4 953.4 | 4 912.3      | 4 992.4 |

Footnotes follow last table.

TABLE 7A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, ONTARIO

|                                                             | 1981    | 1982         | 1983    |
|-------------------------------------------------------------|---------|--------------|---------|
|                                                             |         | (\$ million) |         |
| Taxes <sup>a</sup>                                          | 40.5    | 43.8         |         |
| Gross farm rent                                             | 120.4   | 126.9        |         |
| Wages to farm labor                                         | 393.1   | 393.1        |         |
| Interest on indebtedness <sup>b</sup>                       | 659.9   | 641.3        |         |
| Total machinery expenses <sup>c</sup>                       | 390.4   | 443.1        |         |
| Fertilizer and lime                                         | 261.0   | 248.2        |         |
| Other crop expenses <sup>d</sup>                            | 274.3   | 285.2        |         |
| Feeds <sup>e</sup>                                          | 666.1   | 638.1        |         |
| Other livestock expenses <sup>f</sup>                       | 261.5   | 323.2        |         |
| Repairs to buildings <sup>g</sup>                           | 66.8    | 72.6         |         |
| Electricity and telephone                                   | 83.5    | 91.3         |         |
| Miscellaneous <sup>h</sup>                                  | 277.1   | 299.7        |         |
| Total operating expenses                                    | 3 494.6 | 3 606.5      | 3 598.4 |
| Depreciation on buildings                                   | 215.6   | 218.0        | 215.8   |
| Depreciation on machinery                                   | 433.9   | 386.0        | 382.2   |
| Total operating expenses and<br>depreciation charges        | 4 144.1 | 4 210.5      | 4 196.4 |
| <i>Income of farm operators from<br/>farming operations</i> |         |              |         |
| Cash receipts                                               | 4 953.4 | 4 912.3      | 4 992.4 |
| Income-in-kind <sup>b</sup>                                 | 74.4    | 72.5         | 74.5    |
| Realized gross income (1 + 2)                               | 5 027.8 | 4 984.8      | 5 066.9 |
| Operating & depreciation charges                            | 4 144.1 | 4 210.5      | 4 196.4 |
| Realized net income (3 - 4)                                 | 883.7   | 774.3        | 870.5   |
| Value of inventory changes                                  | 22.5    | - 101.4      |         |
| Total gross income (3 + 6)                                  | 5 050.3 | 4 883.4      |         |
| Total net income (7 - 4)                                    | 906.2   | 672.9        |         |

Footnotes follow last table.

TABLE 8. FARM CASH RECEIPTS 1981 TO 1983, MANITOBA

|                                                                  | 1981    | 1982         | 1983    |
|------------------------------------------------------------------|---------|--------------|---------|
|                                                                  |         | (\$ million) |         |
| Wheat <sup>1</sup>                                               |         |              |         |
| Oats <sup>1</sup>                                                | 468.6   | 556.1        |         |
| Barley <sup>1</sup>                                              | 7.0     | 7.8          |         |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 148.0   | 152.0        |         |
| Rye                                                              | 37.4    | 46.9         |         |
| Flaxseed                                                         | 16.5    | 13.8         |         |
| Rapeseed                                                         | 71.5    | 60.5         |         |
| Soybeans                                                         | 74.5    | 83.5         |         |
| Corn                                                             | -       | -            |         |
| Sugar beets                                                      | 18.7    | 29.0         |         |
| Potatoes                                                         | 22.1    | 12.7         |         |
| Fruits                                                           | 32.6    | 32.0         |         |
| Vegetables                                                       | -       | -            |         |
| Tobacco <sup>3</sup>                                             | 8.7     | 9.9          |         |
| Other crops <sup>6</sup>                                         | -       | -            |         |
| Total crops                                                      | 81.3    | 59.8         |         |
| Cattle and calves                                                | 986.9   | 1 064.0      | 1 005.1 |
| Hogs                                                             | 287.2   | 295.9        |         |
| Sheep and lambs                                                  | 138.9   | 167.1        |         |
| Dairy products                                                   | 0.9     | 0.9          |         |
| Poultry                                                          | 86.6    | 95.7         |         |
| Eggs                                                             | 41.1    | 40.6         |         |
| Other livestock and products                                     | 45.4    | 45.3         |         |
| Total livestock and products                                     | 18.9    | 20.8         |         |
| Other cash receipts <sup>4</sup>                                 | 619.0   | 666.3        | 679.1   |
| Cash receipts from farming operations                            | 28.6    | 12.2         | 9.9     |
| Supplementary payments                                           | 1 633.9 | 1 742.5      | 1 694.1 |
| Total cash receipts                                              | 21.3    | -            | -       |
|                                                                  | 1 655.2 | 1 742.5      | 1 694.1 |

Footnotes follow last table.

TABLE 8A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, MANITOBA

|                                                      | 1981    | 1982         | 1983    |
|------------------------------------------------------|---------|--------------|---------|
|                                                      |         | (\$ million) |         |
| Taxes <sup>a</sup>                                   |         |              |         |
| Gross farm rent                                      | 27.8    | 30.0         |         |
| Wages to farm labor                                  | 76.4    | 81.8         |         |
| Interest on indebtedness <sup>b</sup>                | 63.2    | 69.9         |         |
| Total machinery expenses <sup>c</sup>                | 194.7   | 189.6        |         |
| Fertilizer and lime                                  | 246.2   | 283.7        |         |
| Other crop expenses <sup>d</sup>                     | 163.0   | 151.2        |         |
| Feeds <sup>e</sup>                                   | 124.2   | 134.4        |         |
| Other livestock expenses <sup>f</sup>                | 116.4   | 115.8        |         |
| Repairs to buildings <sup>a</sup>                    | 31.3    | 32.0         |         |
| Electricity and telephone                            | 21.9    | 23.2         |         |
| Miscellaneous <sup>g</sup>                           | 26.3    | 28.2         |         |
| Total operating expenses                             | 85.9    | 98.7         |         |
| Depreciation on buildings                            | 1 177.3 | 1 238.5      | 1 212.0 |
| Depreciation on machinery                            | 16.6    | 17.1         | 17.0    |
| Total operating expenses and<br>depreciation charges | 218.8   | 199.0        | 197.0   |
| Income of farm operators from<br>farming operations  | 1 412.7 | 1 454.6      | 1 426.0 |
| Cash receipts                                        |         |              |         |
| Income-in-kind <sup>h</sup>                          | 1 655.2 | 1 742.5      | 1 694.1 |
| Realized gross income (1 + 2)                        | 18.3    | 18.3         | 18.7    |
| Operating & depreciation charges                     | 1 673.5 | 1 760.8      | 1 712.8 |
| Realized net income (3 - 4)                          | 1 412.7 | 1 454.6      | 1 426.0 |
| Value of inventory changes                           | 260.8   | 306.2        | 286.8   |
| Total gross income (3 + 6)                           | 190.7   | 51.6         |         |
| Total net income (7 - 4)                             | 1 864.2 | 1 812.4      |         |
|                                                      | 451.5   | 357.8        |         |

Footnotes follow last table.

TABLE 9. FARM CASH RECEIPTS 1981 TO 1983, SASKATCHEWAN

|                                                                  | 1981    | 1982         | 1983    |
|------------------------------------------------------------------|---------|--------------|---------|
|                                                                  |         | (\$ million) |         |
| Wheat <sup>1</sup>                                               | 2 613.5 | 2 359.6      |         |
| Oats <sup>1</sup>                                                | 9.8     | 7.8          |         |
| Barley <sup>1</sup>                                              | 267.4   | 251.0        |         |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 42.5    | 204.3        |         |
| Rye                                                              | 28.4    | 22.8         |         |
| Flaxseed                                                         | 39.2    | 39.1         |         |
| Rapeseed                                                         | 234.7   | 208.5        |         |
| Soybeans                                                         | -       | -            |         |
| Corn                                                             | -       | -            |         |
| Sugar beets                                                      | -       | -            |         |
| Potatoes                                                         | 3.1     | 4.2          |         |
| Fruits                                                           | -       | -            |         |
| Vegetables                                                       | -       | -            |         |
| Tobacco <sup>3</sup>                                             | -       | -            |         |
| Other crops <sup>6</sup>                                         | 42.9    | 38.9         |         |
| Total crops                                                      | 3 281.5 | 3 136.2      | 2 963.3 |
| Cattle and calves                                                | 457.3   | 479.7        |         |
| Hogs                                                             | 80.3    | 84.5         |         |
| Sheep and lambs                                                  | 3.1     | 2.2          |         |
| Dairy products                                                   | 59.0    | 66.4         |         |
| Poultry                                                          | 25.6    | 24.4         |         |
| Eggs                                                             | 19.0    | 16.5         |         |
| Other livestock and products                                     | 13.3    | 14.4         |         |
| Total livestock and products                                     | 657.6   | 688.1        | 703.6   |
| Other cash receipts <sup>4</sup>                                 | 17.3    | 42.1         | 39.9    |
| Cash receipts from farming operations                            | 3 956.4 | 3 866.4      | 3 706.8 |
| Supplementary payments                                           | 53.9    | -            |         |
| Total cash receipts                                              | 4 010.3 | 3 866.4      | 3 706.8 |

Footnotes follow last table.

TABLE 9A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, SASKATCHEWAN

|                                                             | 1981    | 1982         | 1983    |
|-------------------------------------------------------------|---------|--------------|---------|
|                                                             |         | (\$ million) |         |
| Taxes <sup>a</sup>                                          | 68.6    | 74.1         |         |
| Gross farm rent                                             | 236.5   | 248.4        |         |
| Wages to farm labor                                         | 124.0   | 136.5        |         |
| Interest on indebtedness <sup>b</sup>                       | 399.7   | 405.8        |         |
| Total machinery expenses <sup>c</sup>                       | 568.1   | 654.4        |         |
| Fertilizer and lime                                         | 198.9   | 187.2        |         |
| Other crop expenses <sup>d</sup>                            | 178.5   | 196.8        |         |
| Feed <sup>e</sup>                                           | 100.1   | 100.0        |         |
| Other livestock expenses <sup>f</sup>                       | 35.5    | 39.7         |         |
| Repairs to buildings <sup>a</sup>                           | 38.2    | 40.4         |         |
| Electricity and telephone                                   | 43.7    | 47.1         |         |
| Miscellaneous <sup>g</sup>                                  | 198.7   | 217.2        |         |
| Total operating expenses                                    | 2 190.5 | 2 347.6      | 2 335.8 |
| Depreciation on buildings                                   | 47.2    | 48.4         | 48.0    |
| Depreciation on machinery                                   | 577.9   | 528.5        | 523.1   |
| Total operating expenses and<br>depreciation charges        | 2 815.6 | 2 924.5      | 2 906.9 |
| <i>Income of farm operators from<br/>farming operations</i> |         |              |         |
| Cash receipts                                               | 4 010.3 | 3 866.4      | 3 706.8 |
| Income-in-kind <sup>h</sup>                                 | 38.4    | 37.3         | 37.5    |
| Realized gross income (1 + 2)                               | 4 048.7 | 3 903.7      | 3 744.3 |
| Operating & depreciation charges                            | 2 815.6 | 2 924.5      | 2 906.9 |
| Realized net income (3 - 4)                                 | 1 233.1 | 979.2        | 837.4   |
| Value of inventory changes                                  | 434.9   | 295.9        |         |
| Total gross income (3 + 6)                                  | 4 483.6 | 4 199.6      |         |
| Total net income (7 - 4)                                    | 1 668.0 | 1 275.1      |         |

Footnotes follow last table.

TABLE 10. FARM CASH RECEIPTS 1981 TO 1983, ALBERTA

|                                                                  | 1981    | 1982         | 1983    |
|------------------------------------------------------------------|---------|--------------|---------|
|                                                                  |         | (\$ million) |         |
| Wheat <sup>1</sup>                                               |         |              |         |
| Oats <sup>1</sup>                                                | 1 155.4 | 941.4        |         |
| Barley <sup>1</sup>                                              | 25.6    | 27.8         |         |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 466.2   | 465.3        |         |
| Rye                                                              | 0.3     | 110.4        |         |
| Flaxseed                                                         | 29.4    | 24.3         |         |
| Rapeseed                                                         | 16.0    | 17.8         |         |
| Soybeans                                                         | 277.4   | 218.0        |         |
| Corn                                                             | -       | -            |         |
| Sugar beets                                                      | -       | -            |         |
| Potatoes                                                         | 35.5    | 15.0         |         |
| Fruits                                                           | 19.9    | 19.9         |         |
| Vegetables                                                       | -       | -            |         |
| Tobacco <sup>3</sup>                                             | 14.7    | 16.3         |         |
| Other crops <sup>6</sup>                                         | -       | -            |         |
| Total crops                                                      | 66.3    | 54.3         |         |
| Cattle and calves                                                | 2 106.7 | 1 910.5      | 1 836.7 |
| Hogs                                                             | 1 178.9 | 1 138.5      |         |
| Sheep and lambs                                                  | 195.4   | 233.6        |         |
| Dairy products                                                   | 6.0     | 6.9          |         |
| Poultry                                                          | 174.0   | 193.7        |         |
| Eggs                                                             | 78.3    | 82.3         |         |
| Other livestock and products                                     | 46.7    | 42.0         |         |
| Total livestock and products                                     | 29.5    | 27.0         |         |
| Other cash receipts <sup>4</sup>                                 | 1 708.8 | 1 724.0      | 1 757.8 |
| Cash receipts from farming operations                            | 34.7    | 19.2         | 16.7    |
| Supplementary payments                                           | 3 850.2 | 3 653.7      | 3 611.2 |
| Total cash receipts                                              | 30.6    | 141.6        |         |
|                                                                  | 3 880.8 | 3 795.3      | 3 611.2 |

Footnotes follow last table.

TABLE 10A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, ALBERTA

|                                                      | 1981    | 1982         | 1983    |
|------------------------------------------------------|---------|--------------|---------|
|                                                      |         | (\$ million) |         |
| Taxes <sup>a</sup>                                   |         |              |         |
| Gross farm rent                                      | 39.9    | 43.1         |         |
| Wages to farm labor                                  | 155.4   | 139.8        |         |
| Interest on indebtedness <sup>b</sup>                | 164.5   | 182.0        |         |
| Total machinery expenses <sup>c</sup>                | 497.8   | 472.9        |         |
| Fertilizer and lime                                  | 514.7   | 594.5        |         |
| Other crop expenses <sup>d</sup>                     | 280.3   | 268.5        |         |
| Feeds <sup>e</sup>                                   | 147.6   | 160.7        |         |
| Other livestock expenses <sup>f</sup>                | 260.0   | 237.4        |         |
| Repairs to buildings <sup>g</sup>                    | 135.7   | 122.4        |         |
| Electricity and telephone                            | 50.7    | 53.5         |         |
| Miscellaneous <sup>h</sup>                           | 52.4    | 57.7         |         |
| Total operating expenses                             | 182.1   | 197.4        |         |
| Depreciation on buildings                            | 2 481.1 | 2 529.9      | 2 485.1 |
| Depreciation on machinery                            | 86.5    | 87.2         | 86.3    |
| Total operating expenses and<br>depreciation charges | 493.5   | 450.7        | 446.2   |
| Income of farm operators from<br>farming operations  | 3 061.1 | 3 067.8      | 3 017.6 |
| Cash receipts                                        |         |              |         |
| Income-in-kind <sup>b</sup>                          | 3 880.8 | 3 795.3      | 3 611.2 |
| Realized gross income (1 + 2)                        | 35.4    | 34.8         | 35.5    |
| Operating & depreciation charges                     | 3 916.2 | 3 830.1      | 3 646.7 |
| Realized net income (3 - 4)                          | 3 061.1 | 3 067.8      | 3 017.6 |
| Value of inventory changes                           | 855.1   | 762.3        | 629.1   |
| Total gross income (3 + 6)                           | 121.1   | -74.2        |         |
| Total net income (7 - 4)                             | 4 037.3 | 3 755.9      |         |
|                                                      | 976.2   | 688.1        |         |

Footnotes follow last table.



TABLE 11. FARM CASH RECEIPTS 1981 TO 1983, BRITISH COLUMBIA

|                                                                  | 1981  | 1982         | 1983  |
|------------------------------------------------------------------|-------|--------------|-------|
|                                                                  |       | (\$ million) |       |
| Wheat <sup>1</sup>                                               | 25.1  | 12.2         |       |
| Oats <sup>1</sup>                                                | 3.4   | 3.2          |       |
| Barley <sup>1</sup>                                              | 14.1  | 8.9          |       |
| Crop ins., advances, deferments,<br>& WGSA payments <sup>2</sup> | 7.1   | 6.5          |       |
| Rye                                                              | -     | -            |       |
| Flaxseed                                                         | -     | -            |       |
| Rapeseed                                                         | 6.1   | 1.9          |       |
| Soybeans                                                         | -     | -            |       |
| Corn                                                             | -     | -            |       |
| Sugar beets                                                      | -     | -            |       |
| Potatoes                                                         | 17.7  | 15.2         |       |
| Fruits                                                           | 91.5  | 96.3         |       |
| Vegetables                                                       | 52.3  | 49.0         |       |
| Tobacco <sup>3</sup>                                             | -     | -            |       |
| Other crops <sup>6</sup>                                         | 87.5  | 84.6         |       |
| Total crops                                                      | 304.8 | 277.8        | 300.1 |
| Cattle and calves                                                | 119.5 | 125.3        |       |
| Hogs                                                             | 44.3  | 52.3         |       |
| Sheep and lambs                                                  | 2.0   | 2.7          |       |
| Dairy products                                                   | 195.7 | 218.2        |       |
| Poultry                                                          | 81.8  | 76.7         |       |
| Eggs                                                             | 60.5  | 57.3         |       |
| Other livestock and products                                     | 19.8  | 23.8         |       |
| Total livestock and products                                     | 523.6 | 556.3        | 576.3 |
| Other cash receipts <sup>4</sup>                                 | 35.1  | 59.5         | 37.9  |
| Cash receipts from farming operations                            | 863.5 | 893.6        | 914.3 |
| Supplementary payments                                           | 0.4   | -            |       |
| Total cash receipts                                              | 863.9 | 893.6        | 914.3 |

Footnotes follow last table.

TABLE 11A. FARM OPERATING EXPENSES AND DEPRECIATION CHARGES 1981 TO 1983, BRITISH COLUMBIA

|                                                             | 1981   | 1982         | 1983  |
|-------------------------------------------------------------|--------|--------------|-------|
|                                                             |        | (\$ million) |       |
| Taxes <sup>a</sup>                                          | 12.4   | 13.4         |       |
| Gross farm rent                                             | 14.7   | 16.1         |       |
| Wages to farm labor                                         | 112.8  | 124.0        |       |
| Interest on indebtedness <sup>b</sup>                       | 183.8  | 172.2        |       |
| Total machinery expenses <sup>c</sup>                       | 84.3   | 96.3         |       |
| Fertilizer and lime                                         | 24.1   | 25.8         |       |
| Other crop expenses <sup>d</sup>                            | 29.2   | 30.8         |       |
| Feeds <sup>e</sup>                                          | 125.7  | 109.9        |       |
| Other livestock expenses <sup>f</sup>                       | 18.4   | 18.9         |       |
| Repairs to buildings <sup>a</sup>                           | 13.7   | 14.5         |       |
| Electricity and telephone                                   | 15.5   | 16.3         |       |
| Miscellaneous <sup>g</sup>                                  | 47.4   | 51.3         |       |
| Total operating expenses                                    | 682.0  | 689.5        | 671.6 |
| Depreciation on buildings                                   | 29.3   | 28.8         | 28.5  |
| Depreciation on machinery                                   | 62.1   | 66.2         | 65.5  |
| Total operating expenses and<br>depreciation charges        | 773.4  | 784.5        | 765.6 |
| <i>Income of farm operators from<br/>farming operations</i> |        |              |       |
| Cash receipts                                               | 863.9  | 893.6        | 914.3 |
| Income-in-kind <sup>h</sup>                                 | 15.2   | 14.8         | 15.3  |
| Realized gross income (1 + 2)                               | 879.1  | 908.4        | 929.6 |
| Operating & depreciation charges                            | 773.4  | 784.5        | 765.6 |
| Realized net income (3 - 4)                                 | 105.7  | 123.9        | 164.0 |
| Value of inventory changes                                  | - 31.5 | - 2.5        |       |
| Total gross income (3 + 6)                                  | 847.6  | 905.9        |       |
| Total net income (7 - 4)                                    | 74.2   | 121.4        |       |

Footnotes follow last table.

## Footnotes

<sup>1</sup> Includes participation payments made by the Canadian Wheat Board directly to producers

<sup>2</sup> Net cash advances on farm-stored grains and deferred grain receipts plus payments under the Western Grain Stabilization Act to producers in Western Canada plus crop insurance payments

<sup>3</sup> Receipts from the sale of tobacco in the Maritimes are included in "other crops"

<sup>4</sup> Includes receipts from the sale of forest and maple products, as well as dairy supplementary payments, deficiency payments, provincial income stabilization payments, and other supplementary payments made by federal and provincial governments

<sup>5</sup> Includes payments to producers by the Ontario Wheat Producers' Marketing Board

<sup>6</sup> Includes cash receipts from floriculture and nursery

<sup>7</sup> Sum of provincial detail may not exactly equal Canada detail due to rounding

<sup>a</sup> Owned land and buildings only

<sup>b</sup> Interest payments on outstanding farm mortgage debts for owned land and buildings, together with interest payments on all other farm business debts

<sup>c</sup> For the farm business

<sup>d</sup> Pesticides, seed, irrigation, twine, wire and containers

<sup>e</sup> Purchases through commercial channels only

<sup>f</sup> Livestock purchases, artificial insemination charges, purebred livestock registration fees and veterinary expenses

<sup>g</sup> Fencing, custom work, insurance and other supplies, services not previously specified, and crop insurance premiums

<sup>h</sup> Excludes imputed house rent

# Farm equipment industry outlook

*R.J. Peterson*

Thank you for this opportunity to comment on the farm equipment industry outlook in the near and mid-term on behalf of CFIEI, the Canadian Farm and Industrial Equipment Institute.

Before talking about the shorter term, let me first say that in our industry, we're optimistic about the long term of agriculture, agribusiness, and the manufacturing sector.

We're optimistic because, like all of you, we understand the opportunity and potential available to agriculture, and consequently, to agribusiness.

The continually increasing world population and rising levels of per capita income in most of the world combine to create a growing demand for quality agricultural products.

That's opportunity for Canadian agriculture and North American agriculture — practiced in the world's greatest farm area by the world's most productive and efficient farmers — farmers who have learned to utilize mechanization, technology and management skills to compile a performance record that is truly a marvel of achievement.

As far as the short term is concerned, we're confident, but concerned, because it certainly is a difficult period for each sector of agriculture.

Agriculture and the business of making farm equipment have always been particularly difficult activities to forecast because they are subject to what we call gust — great uncertainty in the short term — the vagaries of weather, growing conditions, commodity prices and political activity.

And competition is always keen in our business. But then, all of us are used to "Gust", and we all welcome competition because we understand the benefits that competition brings to customers.

We're concerned, but confident, because we've seen difficult times before: recession, depression, war, and even in a different way, the frustrating boom phenomena of the mid-70's. And, of course, we know the capable experienced people in each sector of agriculture are used to meeting problems, facing them squarely and dealing with them successfully.

Today on this program, I'd like to try to touch on some of the sensitive issues in our industry and what seems to be happening in our business.

I'm going to try to do it in a detached manner, the way an objective and qualified outsider might do it (someone without the deep personal involvement that we have), and try to identify the cause and effect at work in farming, farm equipment manufacture and farm equipment retailing.

The first observation by such a person (that objective outside observer) would probably be that there are too many participants in each sector and that the numbers in all three will continue to decline.

And that's not really new; it's a continuing story of change — slow motion change perhaps — that's been going on for a long time.

Let's take a brief look at each of the three sectors, starting with farming because farming is the driving force for both the manufacturing and retailing sectors. What can be observed is a steady evolution of farm mechanization over the last 100 and some years — particularly in the years of this century — and the consequent reduction in the number of farmers.

Ever since the industrial revolution began and progressed in North America, Canadian and American farmers have responded in the only way they could respond: by demanding machinery to replace farm labor as that labor left the farms and rural areas and headed for the urban factories.

Ever since Eli Whitney and Cyrus McCormick introduced the first major labor-saving farm machines, other men (Hart Massey, John Deere, Jerome Increase Case, James Oliver, the Harrises, the Cockshutts, and hundred of others not so well remembered) followed with more farm machinery innovations, and farmers demanded the continued development of machines to substitute for that disappearing or unavailable labor.

In the process, the Canadian and American farmers made themselves the most productive and efficient producers of a product — any product — that the world has ever seen. Fewer farmers each year, using increasingly efficient machines, generated production that provided an ever-increasing population with a consistently greater and improved supply of food and fiber at steadily lower prices as a percent of people's income, and still had the reserve capacity and ability to supply those products to much of the rest of the world.

So today, the result is that farming is the biggest business in Canada and in North America. It is the most efficient and the most productive and it is the heart of the export potential of the North American economies.

Now there's a paradox in this story of farming achievement that has to be understood.

On the one hand, the great development just mentioned, but on the other hand, that very development caused the regrettable decline in the number of farmers and a change in a way of life in rural North America. A loss, perhaps, of access to the basic values that are an integral part of the experience of farming and the activities closely related to it.

And I don't know anyone who denies the benefits of that way of life. Like many of you, my personal feeling is that it's too bad fewer people today (and even fewer tomorrow) will share in it. My grandparents, again, probably like yours, came to North America to settle or homestead as farmers. That part of our family history is woven today into the fabric of life in our family, but decreasingly so, as my children like yours only hear about it, rather than experience it. Their children's experience will probably be even more remote from it in our increasingly urban society.

For those of us in any segment of this business, that's painful because we can personalize the changes. We know people who feel compelled to leave farming and the homeplace or agribusiness and the hometown. We would rather that didn't have to happen to anyone. But the fact is it's been happening for a long time and it will continue to happen, although perhaps at a slower rate, as the reduction in farmers approaches some irreducible minimum.

But the major part of farming will still be done by farmers and family farms, many of which will incorporate their operations.

Turning now to manufacturing, we can observe that the changes in farming have dictated a similar evolution in farm equipment companies. In other words, fewer or restructured suppliers. That's not new either, but similar to the farming paradox the cause and effect at work needs to be understood. Many people outside agriculture and even some within it seem to find that difficult.

Some people believe that the companies in our industry have really caused the changes in farming by developing larger, more efficient, more expensive machines and then somehow compelling farmers to buy them, thus driving down the number of farmers. We became the parties guilty of causing rural change. Those people suggest that we stop or slow down machine development so that rural change could be stabilized. And we listen to the well-intentioned people who hope for, or long for, an earlier time remembered as a bucolic life of slower pace and more comfortable change, and to their suggestion that perhaps smaller equipment (horse-drawn or 1950-1960 power sizes) would arrest or stabilize rural changes they see as undesirable.

But, of course, we also know that those people are not among the relatively small percentage of production farmers who produce the great majority of commercial agricultural products today.

So our answer to those people, and to our critics, is that farm equipment companies don't cause the changes because of those new machines. Rather, the companies are caused by the changes that farmers feel compelled to make in farming: to compete between themselves to supply that farmer demand with different versions of the equipment farmers say they want and need to remain productive and efficient, or to become even more so.

We know from experience and history that failure to respond to farmer demand results only in less business and in fewer dealers willing to handle our lines.

Manufacturers of farm equipment face the sobering reality of fewer potential customers each year. It's been that way for a long time — and again — we're used to it. Certainly we're all proud to serve the farmer; we consider him the finest customer in the world. But few prudent businessmen would venture into a market with a declining customer base and then try to accelerate the decline.

So it is the changes in farming by farmers that dictate fewer, more efficient, and probably larger, machines. It follows that they will probably be supplied by fewer, or differently structured, farm equipment companies.

Now right today, all of our companies are in the process of striving to improve our own productivity, our own efficiency of operation — streamlining management, and making every effort to achieve lower costs.

We're challenged like never before to generate necessary profits, not only to satisfy the expectations of stockholders, but to reinvest in the business, including continued investment of 4 to 5% of every sales dollar in research and development so that we will be able to offer the technological advancements in farm equipment that we know farmers will demand in the future.

And we've got a relatively new concern: if we don't do those things successfully, someone else will, and not necessarily from within Canada or from within North America. We operate in an international arena today, and like farmers, we compete not only within our countries but outside them as well.

Certainly we're not without challenging problems in manufacturing today. I mentioned earlier the difficulty of forecasting. In less than 10 years, for example, we've seen two aberrations in agricultural activity.



You know that in the early 70's, an unusual number of economic variables came together at once in ways generally favorable to agriculture and caused significant changes beneficial to agriculture. First, there was the corn blight, then the Russian wheat scare, a sharp rise in export demand, and consequently in commodity prices — and agriculture was catapulted to a new plateau of export activity which continues today, higher than in the period prior to 1973. Those were heady times of wine and roses in agriculture. That's the kind of "gust" we all enjoy.

However, in the late 70's and now in the early 80's, another unusual combination of economic variables has occurred in agriculture about the same time — this time not particularly favorable to agriculture.

The energy crisis, OPEC, political unrest in many parts of the world, less export demand, high inflation, high interest rates, embargoes; these all contributed to a dramatic increase in the cost of farming inputs while farm income increased at a slower rate. This resulted in the present cost/price squeeze and the under-utilization of the manufacturing capacity our industry had only recently installed to accommodate the demand expected to be more similar to the demand of the mid-70's.

Through both periods farmers bought (some overbought) and leveraged themselves too highly, then had to cut back on investments.

Companies expanded, perhaps to excess, oversupplied the demand, accumulated excessive inventories and incurred excessive financing burdens.

Dealers made substantial investments in facilities, equipment and management systems, raising their image as they did to become the most substantial businessmen in the rural community. Then they had trouble, as we all did, foreseeing and gauging the lower demand that began in 1980.

With the clarity of hindsight, we have to criticize ourselves for not seeing the boom of the mid-70's and the cycle we're in now and the situation today more clearly for what they were — unusual aberrations of the evolutionary process — which at first caused that process to plateau and slow down. Now the recent cycle is speeding up the process to catch up with the extrapolated established long-time trend line.

Let me comment now on the retail farm equipment dealers — the remarkable entrepreneurs who are the middlemen, the universal joint, between producer and manufacturer.

There will be fewer, but larger and even more capable dealers, in the future beginning right now. Those dealers are going to probably have to shoulder more of the financing burden in our industry because that burden is becoming too great for the manufacturers to continue the traditional arrangements.

But changes in retailing have occurred steadily for 50 or 60 years — from dealers in every rural town to perhaps in every county seat town, to today in the larger rural trade centers.

The basic framework of the retail distribution system for farm equipment is not going to change drastically, even in the long term. There will be larger dealer territories, but location, distance and convenience will still dictate the continued need for relatively local availability of sales, service and parts quite similar to what it is today.

Farming will still be done in the same places with same cropland base, and while fewer people, machines, dealers and companies may be required to do it, the rising penalties of production downtime, given the investments, will require the services of the retail dealer to be even more timely than they are today.

And the highly personal relationships that exist between dealers and farmers will continue. In Canada and the U.S., dealers and farmers know each other very well. They conduct business on the basis of a strong personal relationship and loyalties — stronger even than brand loyalties. We can't see any alternate system that will provide the necessary services and personal involvement to farmers more effectively in the future.

Used equipment is a major factor in the farm equipment business. The farm equipment business will remain a mature replacement industry, but as farmers increase their investment in equipment, they are lengthening the cycle time of machine replacement. There will continue to be a requirement for good relatively late-model used equipment, but older, smaller farm equipment is beginning to go out of service more quickly than in the past.

The retail business will become an even more specialized business, dealing in highly technical production equipment, and requiring substantial retail operations to put the machines in service and then support them in the field.

The retail dealerships will continue to look much like they do today, more like the top dealerships of today. Sure they will be a little bigger and a few fewer with more territory to cover, but with more investment to be able to do it. And leasing is beginning to play a bigger part of the dealer's marketing program.

These dealerships will be attractive places and still the best game in town for the right people.

Let me try to summarize. None of us has any trouble seeing the long-term potential and opportunity for agriculture and agribusiness.

All of us in our business understand the reality of our problems today and in the short term.

As we work our way through this difficult period, we expect to emerge from it better able to address the next cycle more efficiently, more productively and more intelligently. And then be better equipped to deal with the future potential and opportunities that will be available.

Farmers are slowing their equipment purchases and their replacement cycles; they have to, as their costs have risen faster than their incomes. They can afford to do that right now because they are operating a relatively large and relatively new fleet of equipment. That fact by itself, however, will soon bring them back into the market for new machines.

Manufacturers are rationalizing capacity, streamlining organizations, trimming overheads and receivables and focusing on the essentials of product quality and reliability. This year, marketing programs have become too extravagant and too expedient to cash flow, and must be returned to a more classical approach to profit.

Dealers are lowering their expectations and adjusting operations to stress service — not sacrificing the high level of parts, technical service and personal attention to their customers.

The same thing is true of most industries today — automobiles, airlines, trucks, construction equipment and railroads — and while it is a painful time for most industries, it is also a time for renewal, self-examination and correction.

Evolution is the process of change and adaptation to an environment over time, not all of a sudden. The structure of the farmer and dealer sectors changes continually and steadily. The manufacturing sector changes are more periodic.

For example, long before my working career began, companies named Van Brunt, Dain and Waterloo Boy consolidated with the John Deere Plow Company and emerged as Deere & Company.

During the careers of most of us today, some of the names mentioned earlier — Oliver, Harris, Minneapolis-Moline and Ferguson — disappeared from the scene or reappeared in restructured companies.

Those who understand the cause and effect in our industry and prepare for it, learn to accommodate it rather than resist it. Those people can look for continued success in the better days ahead.

Finally, let me close on some points we believe in very strongly.

We believe in the ability of the Canadian farmer and the North American farmer to continue to improve efficiency and productivity, and in the ability of our dealers and our companies to supply and serve those farmers.

We believe in the free enterprise system and that it should be allowed to work the way it's supposed to work in both good times and difficult times.

If the Canadian and North American farmer is the world's most efficient and productive producer of a product, those who supply and serve him should work harder, along with governments, to help him realize the maximum productivity and efficiency he can possibly achieve. The role of government should be one of helping all sectors of the industry to achieve an orderly accommodation to this inevitable process of change. That role should not be one of attempting to forestall change or freeze the system into a pattern more appropriate to a bygone era.

That government role seems more appropriate in today's world of international realities because it will help farmers market their exportable production through international competition. Tampering with the process of free enterprise in the private sector won't do that. It will only postpone the penalties of unlucky, inefficient, or unsuccessful management, as well as delay the rewards to managements that somehow avoided those business pitfalls.

One thing is certain — the dynamic evolution of agriculture cannot, and will not be stopped.

Thank you very much for your attention. I think we have time for some questions. I'd also like to mention that we have a supply of a booklet produced by CFIEI with the help of one of our company's economists that arranges fundamental Canadian agricultural statistics in a sequence that we believe illustrates the basic cause and effect at work in agriculture today.

## Mid-term Outlook — Eastern Canada

*Keith Russell\**

When one considers the changes which have taken place in our agricultural industry since 1977, or even since 1979, it takes more courage than I possess to try to predict what our situation might be in 1985 or 1987.

Back in 1977, the agricultural economy in Atlantic Canada was relatively buoyant. Established farmers practicing high levels of technical and managerial skills who were producing commodities for which there is a good marketing system were being rewarded for their work and investment to a greater degree than in past living memory. A few of them were even willing to admit publicly that they were making some money! Hundreds of young people had taken up farming as a full-time career, some of them fresh out of agricultural college, others returning home after several years in an urban occupation. During the 70's, the average age of Atlantic Provinces farm owner-operators dropped by almost a whole generation.

In constant dollars, agriculture in Atlantic Canada grew at an average annual rate in excess of 5% during the period from 1977 to 1980. Many of us thought that the golden age of agriculture had arrived.

Nobody told us in 1977 that just around the corner we were going to be faced with double-digit inflation, galloping interest rates, and the general economic malaise which is now affecting the whole world, including Canada.

In Atlantic Canada, fortunately, our agricultural industry doesn't seem to have suffered the degree of distress which has affected some other parts of the country. Perhaps it's because we've had more experience with adversity, but it's certainly also due to the fact that a large part of our agriculture is composed of dairy and poultry production, and due to our provincial hog price stabilization programs, and probably also to our more conservative attitude toward rapid expansion.

However, even though we haven't had the kind of spectacular bankruptcies that we read and hear about on the national news media, our buoyant spirit of 5 years ago has certainly been chilled. We have a lot of farmers in Atlantic Canada who are just barely hanging on, and the production expansion which occurred between 1975 and 1981 has now gone flat.

We devoutly hope that between now and 1985, and certainly by 1987, that the situation will improve. But, of course, we don't know.

What we do know is that the potential for the further development of our agricultural industry in Atlantic Canada is pretty much the same now as it was in 1977. In order to maintain or to further develop an agricultural industry in Atlantic Canada or anywhere else, you need four basic ingredients: land, markets, people and money. The situation with respect to the first three of these ingredients remains relatively unchanged.

On the matter of land, we are well endowed. In the three Maritime Provinces, we have a total land area of 33 million acres. Six and one-half million acres of this, about 20% of the total, is capable of agricultural production, exists in blocks of 500 acres or more, and is accessible to roads, telephone, electric power, and social services. Out of this 6.5 million acre land base, we only have 1.8 million acres which are presently cleared and available for agricultural production. So we have an accessible reserve of almost 5 million acres of potential farm land waiting to be employed in food production. We believe that it's probably the largest potential reserve of easily accessible farm land which exists anywhere in North America.

The problem that we face in making use of this potential agricultural land base is that it is currently covered in forest growth. Some of it has never been cleared, and some of it at one time was cleared and farmed and allowed to grow up again. In either case, the cost of buying it, clearing it, and making it useful for agricultural production is more than it is worth on today's market.

The second ingredient necessary for successful agricultural development is a market to absorb what you produce, and here again we seem to have a large potential. To begin with, we have our own local market right at home in the Atlantic Region. Our agricultural industry is currently producing the equivalent of about 40% of the food which our 2 million people consume. We're relatively self-sufficient in dairy and poultry products, but we're producing only about two-thirds of our pork requirement, and less than one-third of our beef. We're exporters of apples and blueberries, but the combined value of these two crops accounts for less than 5% of our total agricultural output. Our only significant agricultural export is potatoes and potato products. If we were to produce all of the food that could be grown and consumed within the region, we would double the size of our agricultural industry.

\* Secretary, Maritime Farmers Council



In addition to our local market, we are traditional exporters of potatoes and apples, and we have during the past 10 years developed an export market for blueberries. We believe that our proximity to the Boston-New York megalopolis and our oceanside location ought to prove advantageous in the further development of our agricultural export potential.

The third necessary ingredient, the most important one, is of course the people; and here again we have a positive situation. As I mentioned earlier, the average age of our Atlantic Canadian owner-operators is almost a generation younger than it was 10 years ago. This younger group is not more intelligent than their fathers were, but they're better educated, better equipped to absorb and apply new technology, and more positive in their attitudes. Or at least they were more positive in their attitudes. Many of them over the past 2 years have become discouraged, and even if they survive as farmers, their positive attitudes will need to be regenerated.

The fourth ingredient is the money: long- and medium-term money for land, buildings, and equipment; short-term operating money; the money which they receive from the sale of their products. Money.. the major problem. We can't expect any substantial growth in our agricultural industry until interest rates drop down at least another five points and/or the price of farm products rises sufficiently to make it profitable for farmers to borrow money to invest and operate their industry. And we can't forecast the date on which this will start to happen again. We can hope that it will occur in 1983, but we don't know.

If and when the money situation becomes as favorable as it was in 1978, we can look forward to some real growth in our industry again. Just how fast this growth will take place will depend on how and when some of the other constraints are removed.

A few of these constraints to the future growth of agriculture are within the power and control of farmers themselves to solve as they wish. Two or three years ago, we had a significant portion of our farm owner-operators who seemed to be operating very successfully. On closer examination you found that in most cases one of these farmers had three things going for him. He possessed a high level of technical knowledge and skill pertaining to the enterprise or enterprises in which he was engaged, he was practicing a high level of managerial skill, and he was producing a product or products over which he had some measure of market control beyond the farm gate.

Put those three together and you usually had a successful farmer. And conversely, if he was in difficulty, it was usually because his technical or managerial skills were lacking or he was producing a product for which there was no producer-controlled marketing system.

During the past couple of years, even some of those practicing high levels of technical and managerial skill and with good marketing systems have found themselves in difficulty.

When we return to the type of economic environment which existed in 1978 and 1979, these three characteristics will still be important; and to a large degree our farmers by themselves and through their various organizations possess the power as individuals to acquire these improvements in their situation where the desire is there to do so.

Most of the remaining factors restraining the development of our agricultural industry in Atlantic Canada are of the type which need to be addressed by government.

One of these, of course, is land development. I've already mentioned the 5 million acres of accessible potential farm land in the three Maritimes Provinces which is currently under some kind of forest cover. The task of clearing, levelling, perhaps removing surface stones, providing adequate drainage, and bringing it into production, is beyond the means of the individual commercial farmers. Eventually, if and as the demand for more food creates sufficient increase in the value of farm land, it may then become economically feasible without government assistance.

In the meantime, our governments have become involved in providing land clearing and development assistance, and it has resulted in substantial acreages of new land being brought into production, particularly in Nova Scotia. It seems to me that permanent land clearing and development programs are good use of public funds, provided that there's a commitment to use that land for agricultural production. One of the benefits of such a program is that as it increases the supply of available farm land, it tends to depress the price of farm land, thus discouraging speculation and making it easier for new entrants to become established and for established operations to expand. Certainly in the Maritimes, if we're going to develop our agriculture substantially over the next 20 years or so, it'll be necessary to move into that 5 million acre resource of ours, and it will require some massive infusion of start-up capital, probably from government, just to get this land ready for production.



Another continuing input which needs to be made by government is, of course, agricultural research. One of our constraints in the Maritimes has been a lack of high-energy winter cereal grain varieties suited to our particular growing conditions. We can grow forage crops competitively with most any other part of North America, but we've always had to depend heavily on outside sources of high-energy cereals. These importations are now being threatened by high transportation costs which has placed greater emphasis on the need for the Maritimes to produce a higher proportion of our own feed grain requirements. In order to do this we need our own varieties, and our traditional late springs and frequently wet Septembers dictate the requirement that these should be winter grains.

Another area requiring greater research input is soil drainage. We're blessed with abundant rainfall in Atlantic Canada to the extent that we have to give more attention to artificial drainage than is necessary in most other parts of Canada. This is further complicated by the fact that some of our best potential farmland down along the eastern side of New Brunswick and through northern Nova Scotia has a semi-impermeable hard pan condition which causes surface water to be retained in the top soil, and which can't be corrected satisfactorily by the normal methods of drainage such as tile or open ditching.

Beyond these two general research needs, our various livestock and horticultural commodities each have their own set of research requirements, and

we're grateful for what's being done. But we need it to be continued, and in some areas, expanded. We also need an improvement in the communications system between our research establishments and our individual farmers and their organizations.

In addition to land development and research, we need our governments to maintain the various transportation policies which help to ensure the survival of our agricultural industry (the Maritime Freight Rates Act, the Atlantic Region Freight Assistance Program, the At and East rate structure) and to increase the funding now applied to the Feed Freight Assistance program.

Mr. Chairman, if someone will guarantee that long- and short-term interest rates for agriculture will drop to 8%, and if our farmers in Atlantic Canada will acquire the highest levels of technical and managerial expertise in this country and organize producer-controlled marketing organizations for all their commodities, and if governments will implement the land development and research and transportation policies I've mentioned along with all the other things they're doing, and if someone will guarantee that this will all happen immediately, then we can guarantee that Atlantic Canada will double its agricultural output by 1987, and double it again before 1995.

The most likely areas for further growth in Atlantic Canada are beef and hogs, seed potatoes, and some of the small fruit and vegetable crops for which our soils and climate are suited. And that's as close as I can come to a forecast.

Thank you.

## Medium-term outlook — Quebec and Ontario

H. Garth Coffin

After accepting the invitation to prepare this outlook presentation, I began my search for some previously undiscovered gems of wisdom on this subject. Within a few days I received two pieces of unsolicited mail, each one advertising a particular economic outlook. The first contained the declaration that we will be facing a new, global inflationary boom in 1983; the second proclaimed that "the end will come in 1984". Unfortunately, it did not say what would end in 1984 — you have to buy the book or subscribe to the newsletter to find that out.

In fact, the focal point of the second letter which I just referred to was "the economic long-wave", first identified in 1920 by the Russian economist, Nikolai Kondratieff, and later analyzed by the Harvard Professor Joseph Schumpeter. This intriguing notion of 50-year cycles of economic activity has been receiving increasing attention and publicity recently, based on the pattern of economic performance which has been observed in the U.S. over the past nearly 200 years. According to this theory, the latest recession, which is undoubtedly the worst since the 1930's, should be the culmination of the current long wave, leading to a long-term upturn of the economy perhaps within the next year or two.

This will be good news for the political parties in power in both Canada and the U.S. as they approach the next major elections. Certainly, to the extent they are able, both governments will be more inclined to favor expansionary economic policies during the next 2 years than has been the case during the past two. But with the present huge deficits in both countries, the question remains as to how much pump-priming can be done should the economic recovery again be delayed longer than expected. And it is by no means clear, long-wave theory or not, that economic recovery will be that pronounced, or that it will come that soon, or be that sustained so as not to need some stimulative action.

The global economy still appears to be quite fragile and potentially subject to further unfavorable developments. According to President A.W. Clausen of the World Bank, speaking to the United Nations General Assembly in New York about 3 weeks ago, international trade didn't grow at all in 1981, but protectionist lobbies did, thereby threatening what he described as "the whole fabric of international cooperation". Moreover, in what appears to be a sombre warning, he observed that:

"Countries which could manage their debt comfortably as long as trade was expanding now have more difficulty paying their debts, and commercial banks seem to be responding by curtailing credit".<sup>1</sup>

In the context of the dire need for funds to stimulate non-inflationary growth, Clausen also challenged national governments throughout the world to re-examine the absurdity of maintaining or even increasing the billions of dollars spent on defense and arms on a global scale each year, while the international development effort amounts to a few hundred million.

The full effects of structural changes now taking place in the North American economy are still difficult to fathom at this point. The Economic Council of Canada projection of unemployment remaining at 10% over the next 5 years or more is not terribly encouraging for the Canadian economy and underscores the title of their latest annual report, namely, *Lean Times*.

What does all of this have to do with the medium-term outlook for agriculture in Central Canada? The short answer is: a great deal — maybe more than any other factor we could consider right now. Perhaps this requires a bit more discussion. But let's first take a brief look at a profile of agriculture in central Canada in order to identify the key features on which to focus. After that we will consider market prospects, inputs and structural changes, and finally, policy issues.

### Profile of agriculture

Agriculture in central Canada is dominated by livestock and poultry production which accounts for more than two-thirds of farm cash receipts as compared to only 26% accounted for by all crops. The specialization is even more pronounced in Quebec where livestock and poultry sales represent 80% of all farm cash receipts. Taken together, Quebec and Ontario account for nearly 60% of all livestock and poultry sales in Canada despite having only 40% of total farm cash receipts. Only in the sale of cattle and calves do these two provinces represent less than half the total Canadian sales.

Although the measure of cash receipts understates the importance of grain production, here too that production is heavily related to, and dependent upon, the livestock sector. In addition to the grains which are consumed on the farm where they are

<sup>1</sup> A.W. Clausen, President, The World Bank, Remarks delivered before the United Nations General Assembly, New York, November 1982.

produced, commercial feed purchases lead all other categories of farm operating expenses at 37% of the total in Quebec and 19% of the total in Ontario. In both cases, as well, interest charges are the second most important operating expense category at 13 and 17% respectively. This means that the cost squeeze becomes really severe when interest rates and feed prices increase simultaneously.

There are other important features that we could examine, but our main point is that the outlook for agriculture in central Canada will be very heavily weighted by the outlook for animal agriculture. My assessment will, therefore, concentrate mostly on this sector and related aspects.

### Market prospects

The domestic demand for most livestock products has generally been stagnant or declining for some time now. Per capita consumption of total meat and eggs has been fairly stable over the past 10 years. If the per capita consumption of one product increases it is usually at the expense of one or more other competing products. That is to say, hog producers compete with broiler producers and beef producers as well as other hog producers for that domestic meat market.

This also means that any growth in aggregate demand in the domestic market relies heavily on population and income growth, both of which have been changing very slowly in recent times. With the boom in the restaurant trade and fast food business having largely run its course in the 1960's and 1970's, domestic demand for livestock products (especially meats) has been quite sluggish. This has been manifested in consumer resistance to meat prices (especially beef) even at levels below those which would enable producers to meet production costs in many cases.

Nor does the medium-term future look all that promising. As already suggested, general economic recovery may still be some distance away and may not be overly strong when it does occur. Hence, it would seem that the best hope for growth in demand would be in the export market. Here, too, we find prospects less than spectacular. With a weak world economy, agricultural surpluses are beginning to accumulate, prompting trading countries such as the U.S. to adopt an aggressive stance, particularly towards countries such as those in the EEC which protect their domestic markets and subsidize exports. The most obvious surplus problems are in cereals, but surplus dairy products in the U.S. and Europe are also symptomatic of the times.

Certainly, if we are going to enlarge our share of the export market for agricultural products, it will have to be through new initiatives such as those represented by Canagrex. Although some of my professional colleagues may not agree, I consider the Canagrex proposal to be a good initiative with a potential to help develop a more sustained export market thrust. I agree with the critics of the Canagrex notion that the success of such a venture depends heavily on the people appointed to the agency, as it does in most cases. But concerns over who will run it are not sufficient reason to completely deny this approach. When one scratches beneath the surface, it may be found that other criticisms of Canagrex are also based on shallow or unsubstantiated fears, eagerly reported by a press which is not exactly favorably disposed towards government intervention in general. But we must recognize the realities of the international marketplace in terms of the actions of other countries and the need to adopt more of an export orientation in our own industry. I think Canagrex can help.

TABLE 1. FINANCIAL PROFILE OF CENTRAL CANADIAN AGRICULTURE — 1981

|                     |           | Quebec       |            | Ontario      |            | % of<br>Canada |
|---------------------|-----------|--------------|------------|--------------|------------|----------------|
|                     |           | Amount       | % of total | Amount       | % of total |                |
|                     |           | (\$ million) | (%)        | (\$ million) | (%)        | (%)            |
| Farm cash receipts  |           | 2652         | 100        | 4950         | 100        | 41             |
| From:               | crops     | 290          | 11         | 1712         | 35         | 23             |
|                     | livestock | 2117         | 80 3055    | 62           | 57         | (97)           |
|                     |           |              |            | (91)         |            |                |
| Farm operating exp. |           | 1878         | 100        | 3679         | 100        | 45             |
| On:                 | interest  | 241          | 13         | 3679         | 17         | 40             |
|                     | machinery | 190          | 10         | 416          | 11         | 30             |
|                     | feed      | 702          | 37         | 690          | 19         | 68             |
|                     |           |              |            | (60)         |            | (37)           |
| Total net income    |           | 646          | 100        | 843          | 100        | 31             |

One apparent bright spot in domestic and perhaps export market prospects for central Canadian agriculture is that pertaining to certain fruit and vegetable production. Rising transportation costs and a favorable exchange rate provided an incentive to expand production in Canada, not only on an import-replacement basis but possibly even for export to nearby U.S. points in competition with the southwestern or southeastern U.S., for example. Although this promises to be a difficult year with large crops and lower prices in the U.S., Canadian producers have been responding to longer term prospects with increased production of a number of commodities.

But this is at least partly a matter of regional competition, which brings me to one of the most lively topics of discussion in Canadian agriculture today, namely the Crow Rate and the Gilson report. Eastern livestock interests have begun to react to the proposed solution of the Crow problem out of concern over the impact on the competitive position of their industry, particularly hogs and beef. These concerns have been fuelled by reports of the Chase Econometric model forecast of the impact on regional livestock production. Apparently this analysis predicts a drop of \$80 million per year in cash receipts from hogs in Eastern Canada by 1992 with an increase of only \$60 million per year in Western Canada for a net loss of \$20 million per year from this product alone for the country as a whole.

If these results are suspect, the same can be said for predictions based almost wholly on an assumption that there will be little or no effect on Eastern Canada. What producer interests in this part of the country find hard to accept is that an injection of \$600 million of new capital per year in western agriculture can be "resource neutral" when there has already been a shift in the competitive position of livestock production from east to west, even before any change in the Crow Rate.

I have previously observed this shift occurring in terms of comparative transportation costs for grains and meat. But this trend can also be seen by comparing market data (Table 2) which shows estimated market returns over feeding costs for hogs produced in the Prairies and Quebec during the past several years. This is the kind of trend that worries eastern producers, not necessarily for how the producers will respond directly as much as the indirect effects through the impact on major investment decisions of agribusiness in the years to come. When the potential effect of the Gilson report is added to this it becomes clearer why eastern livestock interests are worried. Uncertainty over this situation may restrict further developments in the livestock sector until it is resolved.

### Inputs and structural change

There is also some uncertainty concerning inputs and organization of the industry. Certainly, there is a "shakedown" going on in agriculture right now with the financially weak enterprises being eliminated rapidly. It is generally agreed that official bankruptcies are only the tip of the iceberg. One executive member of the Federation of Quebec Hog Producers estimated recently that there may be as many as 1000 out of 8000 producers registered in 1980 who are no longer in business today.

It is also generally agreed that there will be more failures to come in the next few months despite lower interest rates, feeding costs and higher product prices. Certainly many grain producers will be in trouble this year, particularly those who are newest in the business and are still carrying a heavy debt load. It is to be hoped that the chartered banks will be patient in riding out the commodity price cycles so as not to pull the plug prematurely.

TABLE 2. COMPARATIVE RETURNS OVER HOG FEEDING COSTS, PRAIRIES AND QUEBEC<sup>1</sup>

| Crop year | Prairies | Quebec          | Differences |
|-----------|----------|-----------------|-------------|
|           |          | (\$/market hog) |             |
| 1973-74   | 23.42    | 21.39           | 2.03        |
| 1974-75   | 31.21    | 29.31           | 1.90        |
| 1975-76   | 57.22    | 52.98           | 4.24        |
| 1976-77   | 33.56    | 27.15           | 6.41        |
| 1977-78   | 51.34    | 42.85           | 8.41        |
| 1978-79   | 62.16    | 46.03           | 16.13       |
| 1979-80   | 24.15    | 11.52           | 12.63       |
| 1980-81   | 30.18    | 19.46           | 10.72       |

<sup>1</sup> Hog feeding costs are based on average retail prices of 800 lb of hog grower ration (14-16%) (Livestock Feed Board of Canada, Annual Reports)

Market returns are based on average prices for 160 lb, dressed weight, index 100 hogs at Edmonton and Montreal, (Agriculture Canada, Livestock Market Report)



Another phenomenon which has a number of people worried just now is the current decline in land values which appears to be most pronounced in Quebec and Ontario. The erosion of equity that this price decline represents has both farmers and bankers worried, and wondering just how far it will go. Stronger commodity prices and low interest rates might eventually turn this situation around. But it has been recognized for some years that farm land prices were well in excess of those which could be repaid on the basis of returns from agriculture alone. Thus, without a resurgence of speculative interest, farm land values could remain on the soft side for some time.

Changes in farm finance are also of some importance. At this point, many people are wondering just how the chartered banks will react to the difficult position in which they find themselves. Will they remain as eager lenders in the credit market or will they tend to pull back on agricultural credit, given some bad experiences in the past 2 or 3 years? How will recent changes in the Farm Credit Corporation Act affect its role in the credit business? Personally, I see it moving closer to banks and away from part of its traditional clientele and perhaps even away from its undeclared mission of taking a chance on the little guy. This may leave more territory open to provincial farm credit agencies to assist new farmers if they have the resources to do so.

The future of the farm machinery industry remains in doubt, given the prolongation of the current recession. Should it happen that one or more of the major manufacturers do not survive, this could mean important changes in the supply of this category of inputs for farmers in some areas.

In view of these tendencies, then, it appears that central Canadian agriculture is facing a medium-term outlook which can be described as follows:

- Sluggish markets for most products, at least for the next year or two, after which prices for grains are likely to pick up, followed eventually by livestock prices as supplies are reduced.
- Moderation in the rate of increase in some input costs but a tightening up in credit supply, or at least more selective lending on the part of the banks and possibly other credit agencies.
- Continued pressures for consolidation and concentration of the farm sector (and possibly input suppliers, processors and marketing firms) into fewer and larger units.

We have already reached a surprising degree of concentration in some sectors of agriculture. Based on census data provided by Bollman (Statistics Canada) and Ehrensaft (University of Quebec, Montreal), in order to rank with the top 5% of farms in Canada today, you would have had sales in excess of \$160 thousand in 1981. By the same token, this top 5% of farms accounted for 38% of all farm sales in Canada that year. Ten years ago, you could have been in the top 5% with annual sales of \$36 190. This means that the entrance requirements for the "top-5" club have increased more than four-fold over that period, thus easily off-setting inflation.

Other measures of concentration, especially by commodity group, are presented in Table 2A. Again using farms with sales in excess of \$160 thousand for example, we find this group accounting for more than half of all sales in beef, hog, poultry and vegetable farms. The concentration is less in dairy, corn, tobacco and fruit farms.

What is even more surprising is that the top 1% of farms specializing in beef and poultry production account for 34% and 55% of total sales in their respective product categories. These brief observations highlight the importance of taking a closer look at the question of structural change in Canadian agriculture as revealed through the 1981 census data.

All in all, this is probably not the brightest of scenarios for the medium term but perhaps there is light at the end of the tunnel. Judging by the early sign-up of U.S. producers to crop reduction programs, they will be anxious to cut back on output next year. This should help crop prices somewhat. And as we are all aware, a major crop failure or other disaster somewhere else could bring much faster improvement in our market prospects than I see at the moment.

In this context, I would like to comment briefly on the Agriculture Canada projections for grain and livestock production in central Canada over the next 5 to 10 years. These estimates were prepared over the past summer through a kind of consensus approach involving people in the field and were written up by Gellner and Hedley for presentation to the Canada Grains Council semiannual meeting in Montreal about 5 weeks ago.<sup>2</sup> In brief, the projections suggest that total grain production for Quebec and Ontario combined will increase 17% by 1985 and 43% by 1990, as compared to 1982 estimates. These projections are illustrated in Figure 1.

<sup>2</sup> Gellner, J.A. and H.A. Hedley, Eastern Grain Production and Prospects, Canada Grains Council, Semiannual Meeting, Montreal, October 1982.

**TABLE 2A. CONCENTRATION IN NUMBERS AND SALES OF TOP FARMS BY COMMODITY TYPE, CANADA, 1981**

| Type of farms <sup>1</sup>     | Farmers with annual gross sales over |           |           |
|--------------------------------|--------------------------------------|-----------|-----------|
|                                | \$56 000                             | \$160 000 | \$400 000 |
| <i>All farms (317 758)</i>     |                                      |           |           |
| % of farms                     | 25                                   | 5         | 1         |
| % of sales                     | 74                                   | 38        | 19        |
| <i>Dairy farms (43 817)</i>    |                                      |           |           |
| % of farms                     | 43                                   | 5         | 0.4       |
| % of sales                     | 76                                   | 22        | 5         |
| <i>Beef farms (73 313)</i>     |                                      |           |           |
| % of farms                     | 15                                   | 4         | 1         |
| % of sales                     | 74                                   | 51        | 34        |
| <i>Hog farms (13 390)</i>      |                                      |           |           |
| % of farms                     | 41                                   | 12        | 2         |
| % of sales                     | 85                                   | 50        | 21        |
| <i>Poultry farms (8 643)</i>   |                                      |           |           |
| % of farms                     | 33                                   | 20        | 6         |
| % of sales                     | 96                                   | 85        | 55        |
| <i>Corn farms (6 753)</i>      |                                      |           |           |
| % of farms                     | 29                                   | 7         | 1         |
| % of sales                     | 76                                   | 39        | 14        |
| <i>Tobacco farms (2 492)</i>   |                                      |           |           |
| % of farms                     | 87                                   | 21        | 1         |
| % of sales                     | 97                                   | 37        | 4         |
| <i>Fruit farms (8 964)</i>     |                                      |           |           |
| % of farms                     | 11                                   | 2         | 1         |
| % of sales                     | 62                                   | 32        | 17        |
| <i>Vegetable farms (4 832)</i> |                                      |           |           |
| % of farms                     | 19                                   | 6         | 2         |
| % of sales                     | 77                                   | 50        | 27        |

<sup>1</sup> Based on at least 50% of farm gross sales from the commodity identified. Number in parenthesis shows total number of farms in each category

Source: Preliminary data from *Structure of Agriculture Project*,

Statistics Canada, under the direction of Dr. Ray Bollman, Statistics Canada, Ottawa and Dr. Philip Ehrensaft, Université de Québec, Montréal

By the same token, feed use of those grains by livestock is projected to remain virtually unchanged over that period, as illustrated in Figure 2. Taking combined totals into account, and ignoring non-feed use of grains, this would mean that the region as a whole became self-sufficient in feed grain production by last year and will be a grain surplus region by nearly 50% by 1990. Of course, the situation is very different for the individual provinces with Quebec being only 50% self-sufficient at the moment.

In spite of financial difficulties encountered in the current year, grain production can certainly be expected to expand further in those two provinces in the future, but perhaps not at the rate projected in the preceding figures. My guess is that it will be somewhat below those projections, especially over the next 2 or 3 years.

As for the livestock projections, which are set out in more detail in Table 3, I do not have much quarrel with them but they could be a little high on beef and hogs for the near term, and possibly a bit low, in the aggregate, in the longer term.

## Policy issues

Under the circumstances just outlined, I wish to comment very briefly on the major policy issues as I see them. These are the areas which I feel must be addressed by government over the next few years.

### Crow rate and feed grain policy

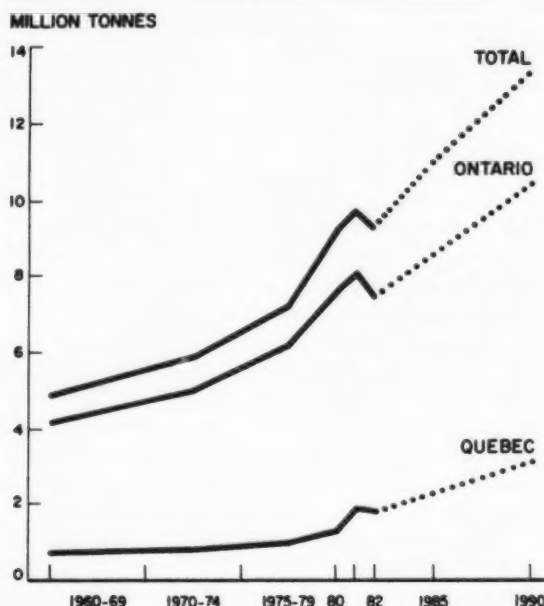
At the top of the list is the need to clear the air on the current status of the Crow Rate and feed grain policy. Concerns over the regional impact of the Gilson recommendations must be addressed more seriously than they have been to date. In saying this I must

emphasize that I am not criticizing the work of Dr. Gilson who accomplished a herculean task under the mandate he was given. But those terms of reference did not include regional impact analysis, and at this point it will take more than a consensus-gathering approach to respond to the issues which have been raised.

On the feed grain policy, we are expecting to hear a

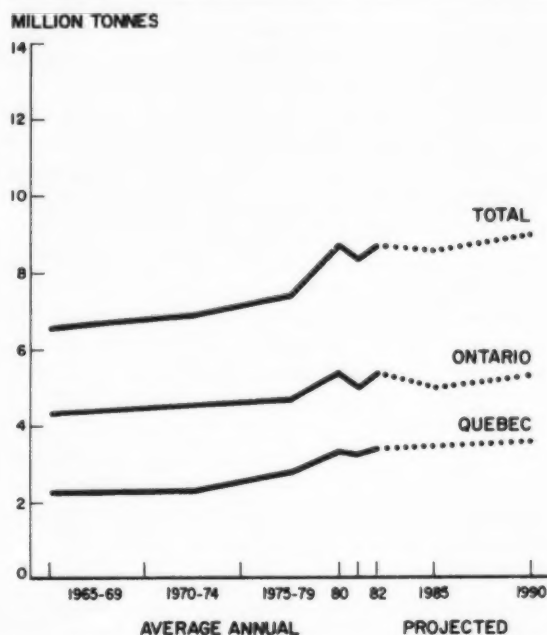
decision soon, as a culmination of the review process carried out over the past few months, including a round of consultative meetings with diverse interest groups. Having attended some of those meetings, and given current market conditions, I have the impression that the present policy is not so bad after all, except that something has to be done about depressed prices, which brings me to my next point.

FIGURE 1. GRAIN PRODUCTION — CENTRAL CANADA



Source: Prepared from data in: Gellner, J.A. and H.A. Hedley, Eastern Grain Production and Prospects, Canada Grains Council Semiannual Meeting, Montreal, October 1982

FIGURE 2. GRAIN USE AS FEED — CENTRAL CANADA



Source: Prepared from data in: Gellner, J.A. and H.A. Hedley, Eastern Grain Production and Prospects, Canada Grains Council Semiannual Meeting, Montreal, October 1982

TABLE 3. LIVESTOCK AND POULTRY NUMBERS ON FARMS AND PROJECTIONS — CENTRAL CANADA

| Category                | Units      | 1982 | Projected 1985 | % of change 1985 proj. vs 1982 |
|-------------------------|------------|------|----------------|--------------------------------|
| Total cattle and calves | (000 head) | 4750 | 4850           | 2.1                            |
| Dairy cows              | "          | 1265 | 1210           | (-4.4)                         |
| Beef cows               | "          | 640  | 670            | 4.7                            |
| Hogs                    | "          | 6020 | 6700           | 11.3                           |
| Hens and chickens       | (mill. lb) | 171  | 175            | 2.3                            |

Sources: Gellner, J.A. and H.A. Hedley, Eastern Grain Production and Prospects, Background Paper, Canada Grains Council

Semi-Annual Meeting Montreaux Grains Council  
Semi-Annual Meeting Montreal, Oct. 27-28, 1982

### **Stabilization program**

Given the current situation and immediate outlook, efforts must be accelerated to develop suitable price and/or income stabilization programs, especially for the grains and red meats sector. On the grains side, we have been counting on the U.S. to do the job for us through maintaining the North American price levels. But perhaps we need a reserve stocks program of our own to extend the benefits of the advance payments system over a longer period. Similarly, in the red meat area, serious consideration should be given to the concept of variable premium income insurance programs in lieu of the supply management approach which would be extremely difficult to successfully implement in this sector. The rigid financial requirements that have developed on the input side of the production process require that we pay more attention to reducing instability on the market side.

### **Export development**

As a third and still highly important area for policy, I would put the need for a major export market development effort. We are facing increasingly competitive conditions in the international market which we must rely on for any significant growth of our industry. We need to emphasize the importance of remaining competitive in those markets, but we also need to

open some doors and establish some commitment to producing for that market. Not only do we need Canagrex, but we must give it the tools and the budget to perform a useful task and not just become a token gesture. Progress in this field should reduce the concerns of regional competition which find expression elsewhere.

### **Conclusion**

Undoubtedly there are other policy issues which will need to be addressed. Certainly, the current structural changes in the industry will raise some interesting questions. The problem of quota value in the supply-managed commodities has not yet been resolved.

But the most immediate concern for a large part of agriculture in Quebec and Ontario is one of survival. This will require a heavy commitment of public and private interests alike in the near term. Even, with strong support in all corners, the industry which does survive the next few years is likely to have a leaner and tougher character than that which exists today.

At this point we must hope that the long-wave theory does work, and that we will turn the corner by 1984. Then we should have at least 25 years to prepare for the next real depression.



# The medium-term outlook — Western Canada

Travis W. Manning\*

Western Canadian agriculture will experience a general economic improvement during the next 5 years. Considering the present state of affairs, something more than a slight improvement will be necessary to restore the vigor of the farming industry. Although the overall improvement seems likely to be satisfactory, the extent of betterment in some areas may be disappointing.

Economic forecasting is difficult at best because so many things do not behave as expected. Even when we can identify and measure important trends and changes, we may be confounded by the capriciousness of consumers, producers, the weather, and especially the politicians (not to mention administrators). The appearance of an OPEC, a FIRA, or an EEC restrictive trade policy can have immediate and far-reaching effects.

The outlook statement is based on the rather unrealistic assumption that western Canadian agriculture will not be affected very much by changes in governmental policies during the forecasting period. Although many policy changes are likely to occur, we can predict neither which set of changes will happen nor how this combination will affect western agriculture. Among the more obvious possible changes are Canagrex, statutory freight rates for grain, EEC trade barriers, Japanese trade policies, Soviet agricultural policies, and American surplus disposal policies. Changes in these and other unforeseen matters could have positive, negative, mixed, or neutral effects. The "neutral" assumption is simplest and easiest to adjust. Those who prefer other assumptions can modify my forecasts to suit themselves.

## General background

Canadian agriculture is increasingly sensitive to general economic conditions in Canada, in countries with which we trade, and in countries with which we compete in trade. The agricultural outlook described in this paper is based in part on the following assumed general economic conditions for the 1983-1987 period:

1. The Canadian economy will experience a moderate recovery from the present recession, but the extent of recovery will vary considerably among the different sectors. Service industries will fare well, agriculture fairly well, and manufacturing not so well. Overall real economic growth will not exceed 4% per year, and unemployment will not drop below 7.5%.

2. The general price level will continue to rise, but the rate of inflation will level off at about 5% per year.
3. The prime interest rate will seek a level about three percentage points above the inflation rate and will settle down around 8%.
4. International trade will increase substantially as our trading partners recover from the recession.
5. International exchange rates will settle near present levels, with the Canadian dollar near 80 cents U.S. and dropping slightly against European and Japanese currencies.

## Farm input costs

### Interest

The costs of indebtedness increased very rapidly during recent years as interest rates rose to unprecedented levels. Interest payments constitute the largest single expense on many farms. Among the hardest hit are those who entered farming or expanded their capital assets by borrowing in the last few years. Those who counted on rising farm incomes to counterbalance higher interest rates have been squeezed hard and some will not survive.

High interest rates were induced by monetary authorities in an effort to reduce the rate of inflation. If inflation has been reduced to reasonable proportions, as it would appear, interest rates should continue downward somewhat further and remain stable. Although inflation and interest rates could be driven upward again by governmental actions, planning figures of about 10% for mortgage loans and 12% for operating capital loans seem reasonable for the forecast period.

### Energy

The world energy situation is both unstable and uncertain at present. Following the sharp oil price increases in 1973, most energy users began to devise and adopt energy conservation measures. These measures and the world-wide economic recession dramatically reduced the demand for petroleum products. Many petroleum exporting countries have become heavily dependent upon income from oil, and their efforts to maintain their incomes have softened prices and strained the OPEC cartel. World oil prices seem likely to settle in the range of U.S. \$30 to \$35 per barrel for the forecast period.

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Canadian petroleum prices began to increase sharply in 1980 after the Canadian government agreed to allow domestic prices to rise gradually to about 75% of the world price. This goal is due to be reached in 1983, relieving another upward pressure on domestic prices. The prices of petroleum products have shown considerable weakness recently, due in part to the recession, in part to energy conservation, and in part to overproduction. Canadian crude prices seem likely to level off around \$32 per barrel for the forecast period. The farm cost of petroleum products can be expected to rise fairly slowly from present levels, probably less rapidly than the general price level.

### **Fertilizers**

The prices of manufactured fertilizers increased rapidly in the 1970s, rising more than those of any other major category of farm inputs. However, they have not risen as fast as petroleum prices since 1979. Although energy prices are major elements of fertilizer costs, especially for nitrogenous fertilizers, changes in energy prices do not account for all of the changes in fertilizer prices. The substantial increase in fertilizer demand is important too. The recent weakening of fertilizer prices is due to lower demand and a substantial expansion of plant capacity. Western Canada will have the capacity to produce a large export surplus of nitrogen and potash for the remainder of the decade.

Grain prices are likely to be a dominant element in fertilizer demand for the next several years. Neither the demand for plant nutrients nor the energy costs of fertilizer production seem likely to increase much, if at all, during the forecast period. Fertilizer prices can be expected to rise less rapidly than the general price level during the forecast period.

### **Farm machinery**

Expenditures for farm machinery and equipment have declined precipitously and may remain low for 2 or 3 years. Farmers have been spending more on repairs, but machinery will wear out eventually and require replacement. Many farmers can operate efficiently with less machinery than they have had in the past. Thus, the demand for new farm machinery seems likely to remain low for 2 or 3 years and to increase slowly during the latter part of the forecast period. Farm machinery prices probably will rise more slowly than they did in recent years. A number of imponderables make the future of the farm machinery market highly uncertain. Actual prices, as opposed to list prices, are unlikely to rise as fast as the general price level. Expenditures for machinery and equipment may rise more slowly than prices.

### **Land**

The opportunity cost of investment in land is usually measured by what money would earn if invested elsewhere. These imputed costs are especially high in periods of high interest rates and high land prices. Rising land prices during the 1970s were supported by expectations of increasing farm incomes, investments in land as a hedge against inflation, and speculation. Investment in farm land by nonfarmers seems to have declined and is likely to remain low for the next few years. Outside influences on farmland prices should be much lower in the 1980's than they were in the 1970's. The cost of owning farm land is likely to decline slightly during the next five years.

Transportation is a very important cost to western farmers, but its existence is largely hidden in higher input prices and lower output prices at the farm gate. Some action on statutory grain freight rates is likely to be taken in the next year. If the government decides to compensate the railroads directly, the change may have little effect on relative prices in the next 5 years. However, if compensation is paid directly to farmers, the nature and timing of the effects are difficult to predict without knowing exactly how the program will be implemented. Grain prices are likely to decline relative to other prices, and feed costs to western livestock producers may decline relative to those for eastern livestock producers. The full effect of the rate changes may not be felt for many years, and it may be less than the effect of other changes occurring in the meantime.

### **Other costs**

Other inputs are important in the aggregate but not so important singly, with the notable exception of feed. Feed prices are strongly influenced by grain prices and are unlikely to increase much during the forecast period. As a group, these inputs are likely to increase moderately in price and quantity during the next few years.

### **Farm income**

No detailed analysis was made of the sources of farm income. The following estimates were based largely on perceived trends and developments in major grains, livestock, and farm costs. The effects of potential public policy changes have not been taken into account for reasons explained earlier. The introduction of Canagrex might not affect western agriculture very much during the next 3 years, if ever. Changes in freight rates would be likely to have greater effects. But the greatest effects may result from changes in production and trade patterns in other countries.

## **Crop Income**

International markets constitute the most important single influence on western Canadian crop income. World consumption of grains for food and feed is likely to continue increasing in coming years. Both the demand for imports and the supply of export surpluses are likely to increase. Canada should anticipate increasing competition for export markets, particularly from the United States and also from France/EEC, Australia, Argentina and South Africa. The net result will be expanded world trade with increasing competition from other exporting countries. Efforts to form a cartel of grain exporting countries are not likely to be favored by the United States. A cartel without the Americans would not be feasible.

Domestic demand for feed grains is likely to improve somewhat as livestock output increases. Prices will rise above present levels but not enough to encourage much expansion in output. The combined effects of the domestic and international markets will raise grain producers' incomes but not to the levels enjoyed in the best recent years.

Prospects for rising incomes from other crops appear fairly promising. Oilseed production should increase somewhat above present levels, but sales will not increase as rapidly as before. Fruits and vegetables should benefit from the effects of rising consumer incomes during the forecast period.

## **Livestock**

Incomes from poultry, eggs and milk are likely to improve modestly during the forecast period as consumer incomes improve. Income from hogs is difficult to forecast, but some general improvement should occur, disregarding the variations due to the production cycle. Income from cattle is most problematic. Markets have been depressed by the sharp decline in consumer demand which is due in part to the recession. However, some evidence suggests a shift in consumer preferences away from beef for health and dietary reasons. If this change persists, beef consumption may not rise to previous levels

despite increasing consumer incomes. The most likely result seems to be for only modest increases in beef consumption during the forecast period.

Export markets for beef and pork are likely to become increasingly important to western Canadian producers in the future. Vigorous efforts are needed to achieve further penetration of the U.S. west coast pork market. Further penetration of the U.S. beef market would be facilitated by some relief from trade constraints. Both political and economic actions will be needed to facilitate a substantial increase in meat exports. The economic actions will include holding prices down to competitive levels by increasing productivity. Only the lowest-cost producers are likely to benefit from increasing market opportunities.

## **Net Incomes**

All in all, western farmers can look forward to increasing volumes of sales with only modest increases in prices. Both domestic and international competition will likely increase. Faced with increasing outputs and inputs at slightly higher prices, farmers will experience a continuing cost-price squeeze. The struggle for greater productivity will become more vigorous. Farmers will need all the help they can get to increase productivity. Consequently, improved technology and management will become more and more important. Increased market opportunities are not helpful to farmers who cannot meet the price competition of those markets. Thus, western farmers need a "CANATECH" more than a "CANAGREX".

## **Acknowledgements**

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## Closing address

*Eugene F. Whelan*

The past 2 days have been filled with intensive discussion and I am sure you have heard all the economic predictions you want to hear. I will try to keep my remarks short, and not throw too many numbers at you.

Once again, the experts have had their say. Their projections have been debated, analyzed and discussed. If they are correct, the outlook for 1983 is not bright for most commodities. We can be encouraged, however, that it looks like a different story shaping up for 1984.

Indeed, the forecasters were quite accurate a year ago when they told us steer prices would rise slightly in 1982. They said that hog prices would also rise, and their predictions actually turned out to be conservative. We also heard here a year ago that world grain production would rise and prices would drop. And that's exactly what happened in 1982.

Only the coming months will prove the accuracy of the projections we have heard here, yesterday and today. Our forecasters have a good track record, however. I am sure we are all hoping they're not entirely correct this time.

Again, they have told us that livestock producers face better prospects in 1983, at least in the first half of the year. That, at least, is some consolation. We have heard that our grain industry is headed for a difficult year, to nobody's surprise. Furthermore, we have been told that net farm income will probably decline slightly in 1983.

If I can offer more consolation, a "slight decline" is, at least, an improvement over this current year in which the drop in net farm income is estimated to be more than 17%.

As I said in my opening remarks yesterday, I believe we can thank the federal six-and-five program that the farm income picture is not going to worsen by that extent in 1983. Among the good things that have happened in this past year, I would have to say one of the best was the federal government's six-and-five restraint program. It could also be our source of strength in the coming year.

The government's restraint guidelines are aimed at breaking our vicious inflationary cycle, lowering interest rates and basically putting some color back in the cheeks of our national economy.

The plan is working, particularly in the agri-food sector. Farm input costs are predicted to drop in 1983, and so farmers will be able to pass their lower costs on to food manufacturers who have given their support to the restraint guidelines.

Input suppliers all along the chain have said they will try to support the six-and-five restraint guidelines this year and next. And the result, it is predicted, will be 6 to 8% inflation in retail food prices.

Last summer, I held meetings with more than 2 dozen representative groups from the agri-food sector to discuss wage and price restraint. I would like to take this opportunity to thank all of them for the commitments they made then — and since — to adopt the government's suggested restraint measures.

We, in the agri-food sector, are setting a fine example for other sectors of the economy in showing them how the restraint program can work. We must strive to keep up that example in 1983 by keeping wage and price increases down to a maximum of 5% in every area — production, processing, distribution and so on.

Of course some farmers don't like the idea of having their cash receipts held to 6 and 5% but I know there are a lot of producers not under supply-management who wouldn't complain at all about a price increase of any size.

Let me just state again: if everybody abides by the guidelines, everybody will benefit. And the agri-food sector and the consumer will all be better off.

One thing individual Canadians can't do as much about is the surplus stocks in other countries — stocks which are affecting our farm gate prices. We heard about those from some of our speakers yesterday, and we know there are many distortions in international trade patterns that affect us too.

That leaves us with one thing to do. We must develop new markets and strengthen our marketing expertise.

The federal government and private industry have sunk a lot of money into improvements to our transportation infrastructure — improvements aimed at increasing our agricultural exports. Here, I am thinking of rail line improvements and construction of the new Prince Rupert Terminal, for instance.

Before long, the federal government should also be able to announce an action plan for expanding western rail capacity. That is certainly something to look forward to amidst glum economic forecasts.

Canadians have invested too much in marketing to stop now. We have the potential to increase agricultural production and exports. So it's full steam ahead.



Yesterday morning's session drove home the point that market development was the best long-term solution to the kinds of problems that we face in agriculture today.

If we have our sights set on profitable sales in export and domestic markets, then we can efficiently do what must be done by way of research, production, processing, and infrastructure.

In short, market development really is the key to unleashing our agri-food industry, so that it can produce to its full potential.

That's why market development was a fitting theme for this Outlook Conference. It is the first prong of the Agri-food Strategy which we presented here last year.

The other two prongs — mission-oriented research, and upgrading the supply base — will be the themes of coming Outlook Conferences.

When we meet here next December 12th, I hope and I expect that we will have a happier outlook for the year 1984.

By then the economy should be firmly on the upswing, and grain supplies should be in better balance with demand.

In the meantime, we must all do what we can to keep our great agri-food industry rolling. We must be tougher and more aggressive and more shrewd than ever.

What's more, I believe we must return to that primary law of rural survival — cooperation.

Thank you.

## CONVERSION FACTORS

| Metric units                         | Approximate<br>conversion<br>factors | Results in:      |
|--------------------------------------|--------------------------------------|------------------|
| <b>LINEAR</b>                        |                                      |                  |
| millimetre (mm)                      | x 0.04                               | inch             |
| centimetre (cm)                      | x 0.39                               | inch             |
| metre (m)                            | x 3.28                               | feet             |
| kilometre (km)                       | x 0.62                               | mile             |
| <b>AREA</b>                          |                                      |                  |
| square centimetre (cm <sup>2</sup> ) | x 0.15                               | square inch      |
| square metre (m <sup>2</sup> )       | x 1.2                                | square yard      |
| square kilometre (km <sup>2</sup> )  | x 0.39                               | square mile      |
| hectare (ha)                         | x 2.5                                | acres            |
| <b>VOLUME</b>                        |                                      |                  |
| cubic centimetre (cm <sup>3</sup> )  | x 0.06                               | cubic inch       |
| cubic metre (m <sup>3</sup> )        | x 35.31                              | cubic feet       |
|                                      | x 1.31                               | cubic yard       |
| <b>CAPACITY</b>                      |                                      |                  |
| litre (L)                            | x 0.035                              | cubic feet       |
| hectolitre (hL)                      | x 22                                 | gallons          |
|                                      | x 2.5                                | bushels          |
| <b>WEIGHT</b>                        |                                      |                  |
| gram (g)                             | x 0.04                               | oz avdp          |
| kilogram (kg)                        | x 2.2                                | lb avdp          |
| tonne (t)                            | x 1.1                                | short ton        |
| <b>AGRICULTURAL</b>                  |                                      |                  |
| litres per hectare (L/ha)            | x 0.089                              | gallons per acre |
|                                      | x 0.357                              | quarts per acre  |
|                                      | x 0.71                               | pints per acre   |
| millilitres per hectare (mL/ha)      | x 0.014                              | fl. oz per acre  |
| tonnes per hectare (t/ha)            | x 0.45                               | tons per acre    |
| kilograms per hectare (kg/ha)        | x 0.89                               | lb per acre      |
| grams per hectare (g/ha)             | x 0.014                              | oz avdp per acre |
| plants per hectare (plants/ha)       | x 0.405                              | plants per acre  |